THE

Horticulturist,

AND

JOURNAL OF RURAL ART AND RURAL TASTE.

VOL. I. OCTOBER, 1846. No. 4.

"CAN A COUNTRY HOUSE be plain and yet tasteful? I wish to erect a house of moderate size on my farm in the country. I do not wish a highly architectural building—it would not accord with the simple character of my estate, or with my mode of life. Yet I desire much to live in a house that shall not be uncouth and offensive, by its violation of all the principles of beauty. Nay, more—I wish a tasteful, simple, and pleasing dwelling, which to much comfort shall unite an agreeable architectural expression."

Such is the substance of some queries addressed to us by a gentleman of intelligence and judgment, a short time ago, and such, as we judge from several letters we have received respecting the subject of *simple rural cottages*, touched upon in our last number, is the feeling of many country gentlemen, who are about to erect country residences.

We have before us a letter from Boston. The writer, who is personally unknown to us, says, "Nothing that has ever appeared in this country, on the subject of rural buildings, has given greater satisfaction here, than the leader in the September number of the Horticulturist. There is something native and true in the remarks on the kind of buildings recommended for rural purposes, which would lead me to hope that we may, by and by, have a style of building of our own, founded on just and sound principles, which shall be to us what the original ideas involved in the classical and pointed styles were to the ancients."

What our correspondent probably means is, that rural architecture, to be entirely satisfactory with us, must be *significant;* that is, it should, so far as possible, express the life and habits of our rural people. Hence, while it is perfectly allowable for the man of wealth and leisure to indulge his taste in a dwelling of any style that is a becoming one for his location, it is scarcely suitable for a farmer or rural cottager to do so. And this simply, because no person should undertake a highly ornamental cottage or villa, who cannot afford to carry out the same degree of completeness, in finish and decoration, in his garden and grounds. A richly decorated country house, with a badly planted and badly kept territory about it, is a sight as painful as that of a man of learning and accomplishments starving in the midst of a rude and barbarous people.

Now the life and habits of our farming

population are in the main dignified and free, yet plain and simple. Their means will neither allow them, nor their tastes lead them, to build or keep up any but simple and fitting houses and grounds. Hence we conceive all rural buildings which, in the end will prove most significant, tasteful and agreeable for them, must be simple in character, and unambitious in style. Such houses will always be found satisfactory, and the neat and quiet grounds, which they demand as accessories, are within the reach of almost every landholder in America.

A few days since, we were looking over the portfolios of some of our leading architects in New-York, admiring the cottages and villas which they showed us as in progress, or as having been designed for various parts of the country. In examining the richly stored portfolio of Mr. Davis (whose well known *atelier* is in the Merchant's Exchange,) our attention was attracted by one, a *Design for a simple Country House*, which appears to us in a good degree to answer our views, as expressed in this and our last leading article. Mr. Davis has kindly permitted us to place this design in the hands of our engraver, and our readers will observe it as our present frontispiece embellishment.

There is nothing in this elevation, fig. 42, which could be objected to as out of keeping with rural life in most parts of our country. There are no useless and unmeaning ornaments, and there is no attempt at high or false architectural style. Yet there is much comfort, and as much beauty, we think, as the subject demands. In other words, it answers the description of our friend with whose remarks we commenced this article—"a plain and tasteful country house."

Our readers will notice, in the first place, that it has an ample *veranda* (or *piazza*, if our readers like this incorrect term better.) A veranda, as frequently built, with fluted columns, &c., is a costly affair. But this is not so. It is positively cheap. The supports are simple, light sticks of timber hewn octagonally or eight sided, leaving a few inches at the top and bottom square, for *base* and *capital*. The roof of this veranda is made of nicely jointed stuff, nailed upon the joist rafters, which are beaded and left exposed, so that no other ceiling is required. On the top it is covered with shingles or tin. And yet this veranda is to our eyes, in point of taste, most agreeable and appropriate. As a matter of comfort, in this climate, such a veranda—so spacious, ample and shady—is equal in value to any two of the best apartments in the house.

The second story of this dwelling gives seven cool and pleasant bed-rooms of full height. The roof has a bold and pleasing projection, which will help to keep the upper windows shaded in summer. There is scarcely an ornament here which does not grow out of the strictest propriety; and yet, for that best of reasons, the beauty of this building, as a simple country house, is far more significant and true than that of most of the imitations of the highly ornate styles of cottage.

The plan of the principal floor of this house, fig. 43, almost explains itself. The parlor and library are on opposite sides of the entry or vestibule, opening into it with either double or sliding doors, so that the whole may, when agreeable, be thrown into one apartment. Some persons would, doubtless, prefer to change the arrangement of this floor, by turning the parlor into a bed-room, and using the library as a parlor.

There is a peculiarity in the arrangement of the dining-room which is worthy of notice. A recess is indicated in the plan, where a *sideboard* is to stand in the dining room. This sideboard is to contain, in one of its portions, *a wicket*, i. e. a closet *opening*

through to the kitchen, by which all the dishes may be received, and returned again when empty, without the labor of carrying them through the house, or the savory odor which that process often disseminates.

Our readers will notice that the chimneys are all kept in the body of the house, and not allowed to expend their warmth in outside walls—an arrangement to the benefit of which we can fully testify from experience.

This dwelling is one which it is proposed to build of wood, after the vertical mode of weather boarding described in our last number. As this is a dwelling of a grade superior to those represented in figs. 30 and 31, the best materials ("sound and clear stuff") should be chosen for this weather-boarding, which may be carefully planed, painted and sanded.

On the rear of the house, where the veranda does not extend, it is proposed to have a large *area*, leading to a fuel cellar under the kitchen, and to a dairy and other cellars under the rest of the house.

The form of the house is a square of forty feet, and the arrangement of such a space is so simple that it may be varied at pleasure. What we chiefly desire, at the present moment, is to draw attention to the simplicity, good taste and economy, of the exterior of the design, which we conceive to be quite in accordance with our own views regarding the principles of propriety in simple rural architecture.

Horticultural, Topographical, and other Notes on St. Louis.

BY THOMAS ALLEN, OF CRYSTAL SPRINGS, MO.

[THE following is from the pen of our obliging Missouri corespondent, THOMAS ALLEN, Esq. of St. Louis. We have seen no account of any part of the GREAT WEST so full of real information to those interested in rural affairs, or with that intelligence so concisely, justly and correctly conveyed. Had we such data, as this article furnishes, from every great natural district in our country, we should consider ourselves possessed of quite a treasury of knowledge, which might be brought to bear almost daily on the subjects within our province.—ED.]

.....

The parallel of latitude in which the city of St. Louis is situated, is 38° 37′ 28″. It is about the parallel of Cape Henlopen on the Atlantic, of Lisbon in Portugal, and of the Bay of San Francisco on the Pacific. The city is 1,390 miles from the Gulf of Mexico; 850 from Washington City; 174 above the mouth of the Ohio river, and 18 miles below the mouth of the Missouri. It is 382 feet higher than the level of the Gulf of Mexico. The Mississippi runs past it with a current of from four to six miles per hour, and with a fall of about one foot in six miles. The city stands about eighty feet above ordinary low water of the river. This eminence extends along the river bank many miles above and below the city, with occasional intermissions, and is, in some places, a limestone bluff, and in others a succession of small hills or knolls. The substratum of the whole is limestone rock, on which rests a dry and tough yellow clay, suitable for making brick, overlaid generally with about a foot in depth of mould. In the valleys and prairies further west, this mould is much deeper, and in the intervals or bottoms near the river, the soil is alluvial, black, deep, and fertile. An extensive alluvial intervale, called the "American Bottom," lies along the river opposite St. Louis in Illinois.

It is about seventy miles in length, and of an average width of about five miles, and contains nearly a quarter of a million of acres—the surface heavily laden with rank vegetation, or cut up by lagoons, bays, coves and creeks. The bluff which bounds it on the east, contains bituminous coal as well as limestone. Some of the ridges along that bluff are sandy. On both sides of the river are found mounds or tumuli, supposed to have been raised by the Indians as monuments of their dead. Some of the prettiest of these are near the river, on the highest natural elevation in the present city of St. Louis. The surface of the ground near St. Louis is otherwise uneven, and sometimes rough, and in many places perforated by sink-holes of a tunnel-shape, through which the water drains into caves or fissures in the rocks below. Several of these caves, on account of their low temperature, are used by Germans for storing beer. When the outlets of these sinkholes are stopped, ponds are formed in them. Several fossils, some of them new varieties, have been found in the limestone. A greyish marble, beautifully variegated, and susceptible of fine polish, exists in the city; and I can point to my parlor chimney pieces, made of it, proud of a domestic production, superior in my estimation to the Italian. Bituminous coal exists in abundance, not only in the bluffs east of the "American Bottom," but at various depths within three miles of the city west, and also upon the Missouri river. Springs are sometimes found of excellent water, but they are not abundant. My farm, however, is blessed with five of them—hence its name.

The soil of the level grounds, prairies and bottoms, is a black and deep vegetable mould of great and enduring fertility. Upon the uneven surface the soil is thin. The clayey subsoil exposed to the air, soon becomes friable, and with the application of manure, productive. It, however, dries quickly by sun and wind, and sometimes bakes and cracks.

The climate does not correspond with that of the same latitude on the sea-coast. It differs in respect to the prevalency of certain winds, in variableness, and in being, perhaps not hotter, but drier in summer. Our spring seasons are often wet; our summers frequently dry. The autumn is often a perpetual "Indian summer," delightful as can be imagined. Yet frost appears sometimes in October, and November may bring severely cold weather. The consequences upon vegetation of a dry summer, succeeded by a fine and late-growing autumn, we may have occasion to advert to. The winters are generally mild. The average mean temperature of the winter months, for seven years being, for example, about 30°. Snow sometimes falls in various depths under 12 inches, but rapidly disappears. It not unfrequently happens that we can plough in every winter month, and for weeks together artificial heat is not required in our greenhouses. Two winters ago, ice was not formed in sufficient quantities to supply our ice houses. Yet I have heard it said, that the Mississippi has been known to be frozen over below the mouth of the Ohio. Last winter that river was firmly closed above and more than sixty miles below this city for more than a month. In the mean time there were many warm and sunny days. The month of February often tempts all vegetation by its genial warmth, and the horticulturist has to lament the premature swelling of his fruit buds, doomed, alas! to repeated and killing frosts in March and even in April. Indeed the month of January is sometimes as mild here as the month of March generally is in Philadelphia. For example, the mean temperature of that

month in 1845 was 41°. Ducks and geese began to fly northward, bluebirds appeared, and several shrubs put forth leaves. Coldest point 22°, warmest 71°, range 49°. The mean of February was 43°; of March 42°; but the range was greater in both these months than in January. Coldest point in March 20°; warmest 74°; range 54°. In April the mean was 64°; coldest 30°; warmest 85°; range 55°. And in all the months of the year, we have sudden and great variations, the thermometer often ranging 20° within two or three hours. The frosts of early April generally find the apricot, the peach, the cherry, the plum, in full bloom. I have heard some of the older inhabitants insist, that a *full crop* of peaches is not realized more than once in five years, owing to premature blossoming. My own experience is corroborative of the general fact, which also applies to apricots and nectarines. Yet some of our trees wholly escape, and are overburdened with fruit; as is the case the present year, notwithstanding severe frosts near the middle of April.

In 1841, the greatest cold was 6° *below* zero, January 17. The greatest heat 102°, July 13. Variation 108°. Greatest heat in February, 70°; greatest cold, 4°. We consider a cold February and March most favorable for our fruit. The mean of February, 1845, was 43°. We had very little fruit that year. The mean of February, 1846, was 32°. We have an abundant crop. The greatest heat of the present unusually hot year all over the country, was 98° early in July No rain of any consequence for more than two months.

The average mean temperature of seven years prior to 1836, according to our late Association of Natural Sciences, was as follows:

January,	29.5
February,	34.5
March,	42.7
April,	58.6
May,	65.2
June,	73.1
July,	78.1
August,	74.6
September,	66.9
October,	55.8
November,	49.2
December,	33.7
	55.2

Annual range, 108°.

This is 5°.2 hotter than what is said to be the medium annual temperature of the whole earth. It is six or seven degrees hotter than the average temperature of London; two or three degrees *less* than that of Washington city; one or two degrees *less* than that of Cincinnati, Ohio, and New-Harmony, Indiana; if the published meteorological statistics of those places are correct. Only two degrees hotter than that of Philadelphia; and eight degrees hotter than that of Boston. About eleven degrees less than that of New-Orleans. Yet St. Louis has the reputation of being excessively hot.

The annual and monthly range of the thermometer is much greater at St. Louis than at London or New-Orleans. It is less than at Albany and Newburgh, and much less than that at many other towns in New-York. There is more uniformity and more humidity in the climate of London than in that of St. Louis. The thermometer will indicate as high a degree of "greatest heat" at Albany in summer, as it will in St. Louis; and in winter, it will show the "greatest cold" at Albany. But we have the greatest heat for the greatest length of time at St. Louis, and the sun's rays seem to be more direct and scorching. We have no mountains, except in the south interior part

of Missouri, while the country is comparatively flat far off to the north and the south, and vast prairies stretch to the east and the west of us. The prevailing winds follow the general course of our Great Valley, modified at times by the blasts from the great plains in the west, and from the prairies and lakes to the east and northeast. Fortunately for us, the east wind does not often, for many continuous days, bring to us the epidemic effluviæ which are generated in the great Senegambian Bottom, that stretches along the opposite shores.

The average number of dry days of four years was 260 for each year; of wet days 105; of sunshine, 314; of no sunshine, 51; of thunder storms, 53.

The summer of the present year has been unusually dry, favorable for insects injurious to fruit, and would have proved entirely destructive to corn and potatoes, but for the rains of the last of August. But the year 1844 was more destructive from too much wet. I think, however, that, as we have no mountains, and the primitive forest is gradually disappearing, future observations will show that the average number of dry days will increase, and that the moisture of our soil and the waters of our streams and small lakes will diminish.

The nights of summer often *feel* as oppressively hot as the days, but not always. The thermometer sometimes falls twenty degrees soon after sunset. There is, in bright moonlight nights, an extensive radiation from the surface of the fields. The thermometer will indicate eight or ten degrees lower temperature at the surface, than it will at ten feet above. Dew is rapidly distilled. The night air is humid. Fogs sometimes arise, but they are not frequent. The commonest diseases of the country are bilious and remittent. New immigrants can scarcely labor in the field under the scorching sun of summer. Ague and fever are often found in the low grounds and along the river "bottoms." Where vegetation is most luxuriant, there is the greatest decomposition. A vegetable diet is the most suitable for the summer months. Fruit also, in moderation, I believe to be better than animal food in warm climates. Fully ripe, and sound and healthy itself, it seems naturally adapted and intended for the use (not abuse) of man, but more particularly in that climate where the man and the fruit grow together.

The following table is an approximation to the times of the flowering, &c., of the fruit trees in St. Louis:

Apricots,	- - -	Mar. 2	to Mar.	10.
Peaches,	- - -	" 17	to April	1.
Cherries,	- - -	" 30	to "	5.
Plums,	- - -	" 30	to "	5.
Early Apples,	-	April 5	to "	15.
Gooseberries,	-	" "	"	
Pears,	- - -	" "	"	
Winter Apples,	-	" 25.		
Strawberries, ripe,	- - -		May	15.
Raspberries, "	- - -		June	12.
Currants, "	- - -		June	12.
Cherries, "	- - -		June	12.
Apricots, "	- - -		July	4.
Blackberries, "	- - -		July	15.
Plums, "	- - -		July	17
Siberian Crab, "	- - -		July	17.

Peaches and Isabella Grapes begin to ripen early in August, and are abundant the last of that month.

The Red Juneating Apple, or Early Red Margaret, sometimes bears two crops in one season, (the second inferior to the first;) and I have seen it blooming the third time the same season.

Garden Operations.—We sow seeds for early salad and cabbage under glass in January and February. Plant Irish potatoes for

early crop in February. Sow parsneps, carrots, radishes, lettuce, onions, cress, and early peas in open ground last of February, or early in March. About first of April, transplant broccoli, cauliflower, cabbage, lettuce, spinach, and plant sweet potatoes in hotbed. Sow annuals (flowers) about first of May. Begin to cut asparagus early in April, and green peas are on our tables as early as the middle of May. We have had frosts, however, even after that time. Plant sweet potato sets about first of May. Dig early potatoes early in June. Corn of the Golden Sioux and Tuscarora kinds, and summer squash, eatable June 20. Gather garden seeds about the last of July. Early planting is essential to get crops well set before the summer drouth.

Animated Nature.—Crows stay with us all winter, and roost on the shrub oaks of the rolling land back of St. Louis, in tens of thousands, flying to the east side of the river early in the morning. They are chiefly injurious to corn in the ear. Robins, Larks, Bluebirds, and Buntings, appear in the warm days of winter. Wild Pigeons sometimes fly north as early as first of February. Ducks, Geese, Brant and Cranes fly north in February and March. Quails and Pinnated Grouse are abundant all the year. Sparrowhawks are very numerous in autumn, and feed on large grosshoppers. Birds in variety appear in March. Bees are often tempted out of their hives in winter; some years begin to work in March, and I have taken full boxes of newly made honey as early as the fifth of May. The same hive will, in favorable seasons, bear robbing three times, and throw off, perhaps, three or four swarms of young bees. Insects in countless numbers and variety flourish from early spring till November, attacking, some of them, every kind of shrub, tree, fruit and animal. The Red Spider, the Aphis, and the Scaly Insect, infest our green-houses. The Striped Bug and others attack the *Cucurbitaceæ*, often destructively. The Curculio, the Peach-grub, and the Apple-worm, are all numerous, and in some seasons overwhelming. The Grasshopper, in summer, in dry seasons, is nearly as injurious as the locust. The Army-worm occasionally mows our meadows for us. The Gopher, or Pouched Rat, and the Mole, are injurious to our gardens; and the former sometimes burrows under the apple tree and destroys the bark of the roots. But we are diminishing the number of these little animals. Rats and mice are also numerous. We protect the birds and the toads, and multiply ducks and turkeys to aid us in our warfare against the insects.

Building Materials. — Our limestone works easily, and resembles granite in color, when dressed. Lime and sand are abundant. White pine is brought here from the Alleghany and from Wisconsin; yellow pine from the Missouri, the Gasconade, &c.; cedar from the St. Peters and the Missouri; black walnut, oak, maple, cherry, poplar, are sawed at our own mills in abundance Bricks are readily made from the clay beneath us, and marble found in some of our quarries.

You will observe, then, that our soil is good, our summers long, and our winters mild; that our climate is quite variable; that we are liable to have warm February's, and late frosts; wet springs, and summers of drouth; late growing autumns suddenly terminated, and myriads of insects in great variety. We have, therefore, our advantages and our discouragements. Some years then, we shall be blessed with great crops, while in others we shall be nearly destitute of any. Some of the evils to which we are exposed, are susceptible of amelioration: others are beyond our control.

The average results encourage us to persevere in planting orchards, cultivating gardens, and otherwise improving our estates.

I may take another occasion to speak more particularly of the natural productions of our forests and fields, as well as of our actual achievements in horticulture and other rural arts. Yours, &c.

THO: ALLEN.

Crystal Springs, St. Louis, Mo., Aug. 29, 1846.

THE STRAWBERRY QUESTION REVIEWED.

BY L. C. EATON, PROVIDENCE, R. I.

[THE "strawberry question" seems to be the *causa belli* of the day. The following article comes to us from our Providence correspondent, and we give place to it, though it is mostly of a speculative character, as perhaps representing the views of some who may differ from the opinions we maintain on this subject. We have received a great number of letters from cultivators in different parts of the country, since the publication of our views on p. 80 of this journal, expressing their assent to those views; and it is but just that there should be a representation from those who differ from us. We have commented anew on some leading points in Mr. EATON'S article in the shape of notes which accompany it.—ED.]

.....

Mr. DOWNING says, that Mr. LONGWORTH has established, in the eyes of the world, the important fact, "that, by his favorite mode of cultivating the Strawberry, viz., by planting a due proportion of staminate and pistillate plants, double the usual crop may be always obtained."

Whatever experience, as a horticulturist, M. rLongworth may have,and however much of useful information he has acquired and disseminated, he would hardly claim the credit of establishing a fact, which has been for the last twenty-five years mentioned by most of the authors upon the cultivation of fruits, and repeatedly brought into notice by communications published in our agricultural papers. Some cultivators in every part of the country have practiced upon it, and been successful in raising large crops.* Some, though their attention has been drawn to it, have neglected to profit by it, and others remain in total ignorance, and still continue to cultivate beds that will hardly repay their labor. The fact has been established, and the reason why it is not more generally known and practiced upon, has not, as we apprehend, been owing so much to the incredulity of botanists, as LONGWORTH suggests, for they have little to do with cultivating fruit, as to the neglect of many of our farmers, gardeners and even nurserymen, to inform themselves upon the subject.

Mr. LONGWORTH says, that "our European gardeners admit that the principles contended for by him, are true in this climate, but still contend that, in Europe, all species are perfect in their blossoms, and

* Mr. Longworth does not claim, and we do not claim for him, the credit of *discovering* this fact. It had been ascertained or discovered long before, in Europe. But even there, it remains to this day a disputed point, among intelligent horticulturists, and is by no means *established*. Mr. Longworth, by continually keeping it before the public here, by testing it again and again, and more than all by the proof he has brought forward in the enormous product of the market growers of Cincinnati, who follow this mode, we consider entitled fully to the credit of having *established it*. A fact may be well known to a few, for a long time before it is "established in the eyes of the world." Fulton was not the first person who ascertained that steam might be used to propel vessels; yet no one will dispute that he *established* that fact.—ED.

there is no difference in the size and appearance of the blossom, which they now admit to exist with us."

This may be the opinion of some of the European gardeners, but certainly not of all. Some of them, to our knowledge are better informed.

The difference between pistillate and staminate plants is as well understood in Europe as here, and the method of selecting a due proportion of the two as much practiced upon.* It was discovered by KEENE, as Mr. LONGWORTH mentions, in 1809, and the subject was inquired into by the Horticultural Society of London in 1817. They addressed a letter to KEENE, and received an answer communicating the fact. PHILLIPS, shortly after, published his "Pomarium Britannicum." He speaks of KEENE's method of cultivating the Strawberry, and confirms the necessity of adopting it.

Mr. DOWNING contends for the principle that most of our strawberries, in their normal or original state, bear perfect flowers, and ["the large growing strawberries," ED.] having a tendency to overbear in rich soil, run out into pistillate and staminate forms. We should judge that when he wrote his treatise upon fruits, he based his opinion upon that of LINDLEY; for, though he states that where a bed of plants is barren from a deficiency of stamens, it will become productive, if male plants are set "along side," or "near by," of which LINDLEY does not speak; yet he does not recommend this method, but says, "the true course is, not to waste the ground by putting out barren plants, but carefully to select, where there is a tendency to sterility, only runners from the most fruitful perfect plants," and refers for authority to LINDLEY, who, he says, "covers the whole matter."* LINDLEY, when speaking of the distinction between sterile and productive blossoms, refers to the Hautbois class of strawberries. From the trial he made, both by cultivating plants obtained of others, and by raising plants from the seed, he condemned the practice of selecting any sterile plants. "In the cultivation of Hautbois strawberries, it will be recommended that the plants called males should be wholly rooted up as useless." (*Lindley's Guide to the Orchard, p.*313.)

It may be possible that the varieties cultivated by him have perfect blossoms, but it seems more probable from what information we can gather with regard to this class, that he only destroyed the absolutely sterile plants, leaving other staminate plants with the female organs so far developed as generally to be productive, without which, however, the pistillate plants would have been wholly unproductive. He, however, speaks of no change taking place in the blossoms of the plants from rich cultivation or otherwise. We should presume that if such change had taken place, either with this variety or any other which he cultivated, "a sound practical gardener," as he was, would have noticed it.

Mr. DOWNING, in his treatise, states that the Prolific Hautbois always bear perfect flowers. In his magazine, he omits [accidentally, ED.] to class it among his enumeration of those varieties having this character.

* We think our correspondent is in error here. We never knew an English gardener who did not look upon the whole matter as a chimera in practice; and a pretty large and constant correspondence abroad, and a close acquaintance with the gardening literature of Europe, enables us to say that it is no where *generally* resorted to in practice on the continent. The theory of the matter is acknowledged, but the practice of it is very rare.—ED.

* Our readers will understand that our correspondent refers to our opinion as expressed in our work on Fruit Trees. It should be remembered at the same time, however, what our correspondent seems strangely to have overlooked, that our article on "the Strawberry Question," in the August number of the Horticulturist, was written expressly to state our own *change of opinion* regarding the *practical* value of the fertilizing plan. Horticulture is not yet a *perfected* but a *progressive* science, and we are in favor of progress.—ED.

Mr. PRINCE speaks of "some varieties of the Hautbois Strawberries being perfect in both organs, and producing very large fruit." Mr. LONGWORTH is confident that he is in an error. The La Grange, he supposes [rightly, ED.] to be the same as the Musk or the Prolific, and he says he has "heard intelligent cultivators contend all the blossoms were perfect in both organs, and always bore full crops. Such is not the fact; but in some seasons a large portion of the blossoms are wholly barren, or *bear small defective fruit, and would, to a casual observer, be supposed to be an abundant bearer.*" This difference of opinion has led us to examine farther into the written history of this class.*

JAMES WORTH of Pennsylvania, in a communication to the American Farmer, Vol. 5, p. 10. (1823,) says: "In some species, *particularly the Hautbois*, the barren and fruitful plants are separate," and should be apportioned. A correspondent of the same paper, Vol. 6, page 198, (1824,) says that "the Hautbois is the only strawberry I ever met with which has male and female plants; all others which I have seen are hermaphrodites," and speaks of the necessity of setting out a due proportion of male plants. A correspondent of the same paper, in a communication published in Vol. 7, p. 56, complains of the barrenness of this variety, and refers for instruction to the communication last mentioned, as coming from the best horticulturist in the state (Maryland.) A correspondent writing from the District of Columbia to the same paper, in a communication published in Vol. 7, page 60, says: "It is only in the Hautbois variety that any difficulty is experienced on account of the sexual difference in the plants. It differs from the character (believed to be common to all other varieties) inasmuch as its *female flower* at least is an *imperfect hermaphrodite*, imperfect as to the male organs. On inspection, the filaments appear thicker and shorter than in the Scarlet and other strawberries, and the anthers are small and effete; and experience proves that the flowers are of themselves barren, or at least produce small and juiceless fruit. The germ is of the proper size, and is found, when properly impregnated, to be fruitful. In the male plant, the filaments are larger and more erect than in the common strawberry, and they have the anthers perfect and the germ smaller. This, too, is believed to be what botanists term an imperfect hermaphrodite, but predominates in the male organs as the others predominate in the female organs. In practice it is well known to the observing horticulturist, that there being of this plant but a small proportion of males to females, the beds will, if nature is left to herself, be in a great part barren."

These figures accompanied the communication, and we presume them to be correct.

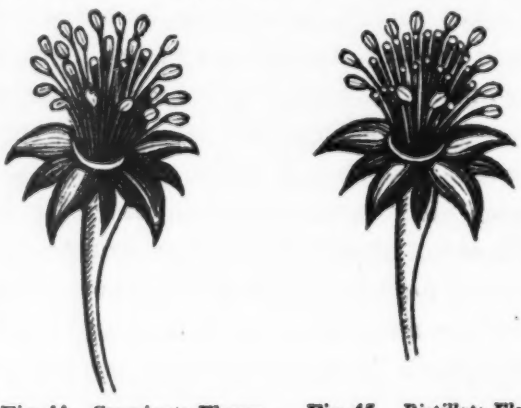

Fig. 44. *Staminate Flower.* Fig. 45. *Pistillate Flower.*

[We give the figures, though scarcely to be recognized as strawberry blossoms.—ED.] Both flowers had all the organs necessary to produce fruit, plainly developed, but each were imperfect. In the blossoms of every

* If the writer of this article were familiar with this class of Strawberries—the Hautbois—he would easily understand what, only reasoning from the writings of others, now puzzles him. Most of the Hautbois are strikingly defective in their blossoms, and have therefore been abandoned by many persons as difficult of cultivation. The *Prolific* Hautbois is an exception, and usually gives good crops—the blossoms being nearly perfect.—ED.

variety of strawberries which we have examined, the organs of both sexes are always present, though in different degrees; yet in some instances, one or the other is so partially deficient in number and size, as to be imperceptible to the naked eye. The cuts accompanying the last number of the Cultivator, give a correct delineation of those organs when examined by a microscope, and plainly show how much they differ in length, size, and form, in distinct plants even of the same class. When raised from the seed, the plants have distinct and different organization. Some may be so far destitute of pistils as to be sterile, or have them in so imperfect a form as to possess but little fertilizing power. Others may have them in such a degree as occasionally to produce small and indifferent fruit; others may have a better proportion, but still not be uniformly productive; and others may be so far destitute of stamens, as to be wholly unproductive without the aid of staminate plants, and may be more or less productive, as the staminate plants used with them differ more or less in the development of their fertilizing qualities. We see no reason to doubt [the existence] of any variety of strawberries, since the proportion of both organs varies so much in different plants, that a plant may be produced having the organs equally well proportioned, and thus be perfect.* If it should not be selected and kept by itself, but cultivated with other seedlings raised with it, horticulturists would differ as to the character of the new variety from cultivating beds more or less fruitful, and having plants of a different organization.

We examined blossoms of the Hovey's Seedling last spring, and whilst we found a large share of the blossoms undoubtedly pistillate, we also found a few differing from the pistillate form, yet not so much as to constitute what we should suppose to be perfect flowers.

Whether every variety was perfect in its normal state is one question, and whether a perfect plant changes is another; and what varieties are perfect, and what otherwise, is also another subject of inquiry.

That certain varieties have a tendency, when highly cultivated, to vary from their normal state, seems to us very improbable. Our wild species produce flowers both staminate and pistillate, whether springing up in rich or poor soil, whether growing upon the barren hill-side or the fertile meadow. When the seeds of strawberries are sown, plants are produced of each description. This fact is shown by the experiments of LINDLEY, and, we are confident, would be confirmed by the experience of every observing cultivator, who has had occasion to test it.

The condition of the soil has nothing to do with this natural difference of organization. Why high cultivation should not produce the same effect with every variety equally productive, according to their organic strength, we are at a loss to determine.* The Large Early Scarlet, for instance, which in the article in the Horticulturist, is

* Here our correspondent is perfectly correct in his views. What are called male and female strawberry plants, or staminate and pistillate, are not so, strictly speaking, like those of real dicecious plants, such as the *Osage Orange* and the *Buffalo Berry*; but only apparently so, as we stated in our work on Fruits. The organs are always present in all strawberry blossoms; but in what appear to be pistillate blossoms the stamens are only rudimentary, or partially developed, and *vice versa*. ED.

* We fear this is the reasoning of a special pleader, rather than that of a scientific investigator. Our correspondent, if he pursue his examinations further into the kingdom of nature, will "be at a loss to determine" the cause of many unexplained anomalies. The Pear, the Apple, and the Quince, are all nearly allied in structure—so much so as to be considered as belonging to one *genus*, by the older botanists. Why is it that three thousand years of cultivation, which has transformed the *crab* and the *choke-pear* into so many hundred delicious varieties, has not yet had the effect of making a single sort of quince a really *eatable* fruit? Why is it that bog earth will cause the flowers of one species of Hydrangea to change to a fine blue, and not affect those of any other? The Boston Nectarine was raised from a peach stone; why does not every peach stone produce a nectarine?—ED.

called perfect, is a regular, very abundant, and excellent bearer, as much so as any other scarlet. Why has not the same cause produced the same effect upon this as upon the other varieties of the same class? That over luxuriance should result in sterility, might be quite probable; but, according to Downing, far from any exhaustion of the productive powers taking place, "some varieties bear finer and more abundant crops than they did in their natural state;"* the vigor of the plants is unimpaired, and when a bed is formed by a proper selection of each, and cultivated in a rich soil, the plants have a stronger tendency to overbear, and therefore a stronger tendency to change from their condition, than when in their normal state.

In support of the opinion of a change in the organization of this fruit, can any analogous case be shown? If it be an anomaly, the proof to establish it should be clear and positive.†

Mr. Downing gives us the result of his observations for the past two seasons, relative to his beds of the Ross' Phœnix and Hovey's Seedlings.

We would premise that he admits that the pistillate or staminate form once reached, is permanent. He says that "last season was the first that an isolated bed, in his garden, of Hovey's Seedling came into bearing. Being fully alive to the interest which this subject has assumed, we examined this bed daily when it was in blossom. As we have before stated, the blossoms were *all* perfect, large, well developed, and bearing a due proportion of stamens and pistils. With a careful search, we were only able to discover two plants that bore pistillate flowers. Every plant bore flowers and fruit. When the same plants came into bloom in May, we watched the opening of the blossoms with a great deal of interest. When the bed was fully in bloom, we discovered that *more than one-third* of the plants bore only pistillate blossoms. Of the remaining two-thirds, many bore perfect blossoms, as they had done previously, while a few also bore imperfect staminate blossoms;" and he predicts that next year, the bed will have changed almost entirely to pistillate plants; and he also states "the same result occurred in a bed of Ross' Phœnix, and that in another part of the garden

* Mr. E. does not quote us quite fairly. In our article on the Strawberry Question, p. 86, we have stated distinctly that a variety having become pistillate, is so imperfect in one of its productive powers—the stamens—that it requires the aid of other plants to fertilize its blossoms. It is only when this defect is supplied most fully, by an artificial system of fertilizing the otherwise sterile blossoms, that it bears more abundantly than in the natural state.—Ed.

† There are many examples of this "change of organization" in other plants. The blossoms of the common Hydrangea, as we usually see them, are entirely sterile. There is not a trace of stamens or pistils. But when this plant is grown in very poor and dry soil, the small and perfect normal blossoms are produced, which have pistils and stamens in abundance. Last season, a very dry one, a large plant in our garden bore numerous clusters of perfect flowers.

On the lawn near our own house, stands a large and fine specimen of *Magnolia conspicua*. In China, its native country, it bears seed abundantly. Here, though perfectly hardy and flowering every year profusely, only two or three pistils in a capsule are fertilized, and swell into seeds. The rest are abortive. The Tulip Tree of our forests, for the first ten or fifteen years after commencing to bloom, bears false or hollow seeds. In the older trees, the fructifying powers assume a more complete form, and the seeds borne are all perfect. The cultivator of exotics is familiar with this change in plants introduced here from warmer climates; hence he fertilizes the blossoms of Camellias, Cacti, and numberless other genera, when he wishes to raise large and perfect seeds. Now the *Pine* Strawberries, (the class to which Hovey's Seedling belongs,) are originally from a warmer climate than our own, and their fructifying organs are liable to the same general laws of variation when introduced into a different climate.

The Dutch florists would give our correspondent a familiar proof of a change in the parts of plants. A grower of tulips raises a large bed of seedlings. When the bulbs first come into bloom, they show only plain or self-colored blossoms. But the florist does not despair; he calls these plain tulips his *breeders*. He cultivates them patiently, and by and by, perhaps in a year, perhaps in several years, the plain and uniformly colored flower breaks out into a new sort, of the greatest variety and brilliancy of color. This variety, having once attained a new and distinct character of blossom, does not fall back again into the normal form, but takes its place among the select variegated sorts.—Ed.

a bed of Hovey's Seedling, that has borne for *three years*, has become entirely pistillate." How did it happen that if perfect plants will entirely change in three years or less to pistillate and staminate forms, that he was so fortunate in 1844 or 1845 as to have beds entirely composed of such plants as these two varieties?

The Ross Phœnix was raised in 1837, and the Hovey's Seedling has been cultivated for twelve years. If it takes but three years only to change their organization, would it not be reasonable to presume that the perfect plants would have long since been entirely extinct? Those who cultivated these varieties, immediately after they were raised from the seed, we presume, cultivated them upon as "rich soil" as that upon which Mr. Downing planted his beds, and raised probably as large crops; why did not the perfect blossoms assume a different form under their management, before any plants reached his hands? Supposing even that some few perfect plants, by not having been "cultivated in rich soil," or not having been allowed to "overbear," still remained, it would be singular that there should be entire beds of them in 1844 or 1845. Whence were they obtained? Has Mr. Downing, or any other person, for years cultivated these varieties upon poor soil, to prevent the perfect plants plants from running out? L. C. E.

Providence, August 20, 1846.

.....

Additional Note by the Editor.—We think we can very readily throw some light on this latter point, which seems so difficult of solution to our friend.

In the first place, we may repeat that when once the normal state of a strawberry is that of perfect blossoms, as we consider Hovey's Seedling to have been, it requires that the plants should bear two to four years upon the same bed before the offsets would also assume a pistillate form. Now, every one knows that a new variety of strawberry as popular as this has been, is not one which is likely to be allowed by gardeners and nurserymen to remain long in the same bed. On the contrary, the demand for Hovey's Seedling has scarcely been supplied by continually taking off the runners, and making new plantations, as fast as they were formed. It is evident, therefore, supposing a bed to bear perfect flowers the first season, that, according to our views, if a new bed were formed with the runners of that summer,and again another fresh plantation made from the off-sets of those runners the succeeding year, that the original perfect condition could be and is preserved. In short we believe as we before said, a strawberry, which is at first productive and perfect in its blossoms, may, by renewing it by fresh plantation, made from off-sets taken from beds that have borne but once, be preserved forever in a perfect state.

Hovey's Seedling is now in this condition in many hands. But in the majority of cases, in private gardens, having been allowed to bear continuous crops, it has assumed permanently the pistillate form, and now requires to be fertilized by other sorts.

The reason why we now recommend the plan of making beds of pistillate and staminate plants, instead of the perfect ones, as we did in our work on fruits, are these:

First, Because, for reasons stated in our article in the August number, we are satisfied that a bed of pistillates, fertilized by staminates, will be more permanently and uniformly productive.

Second, and *chiefly*, Because it requires more care and attention to renew a strawberry plantation every second year than the majority of our cultivators are willing to bestow. A fine crop this year, is the strong-

est temptation to leave the same bed till the next season. The bed originally bearing perfect blossoms, thus becomes barren by the mere exhaustion caused by overbearing, while in the other case, it can only become barren when the plants are absolutely in want of proper nourishment from the soil. Hence what we call Mr. LONGWORTH's mode, requires the least care and attention, and gives the largest and most certain crops.

One word more. The only *important* point of the "Strawberry Question" seems to be pretty thoroughly settled now—that is, the advantage of fertilizing the *pistillate* varieties. We scarcely know an intelligent cultivator in the country, who has given the subject careful attention, that is not now convinced of its value.

The other point—that of the *variation* of certain sorts from a perfect to a pistillate form, is one of comparatively little value, in a practical point of view. There are several horticulturists, and among others, Mr. LONGWORTH, who differ from us regarding this.

It is idle to attempt to settle such a matter by argument. Nothing, when facts are required, will convince those who have not seen, but the facts themselves.

We therefore propose to send to the Massachusetts Horticultural Society, next season, a few pots containing plants of Hovey's Seedling in bloom. Those who oppose the theory of *variation* say that this variety now is, and always has been, a *pistillate* sort. We propose to show it to them in a perfect form—that is to say, *with an abundance of stamens and pistils.* If we do so, (and this ths Society's comm'ttee shall decide,) then we shall consider the theory of variation established. If not, then we will admit that it falls to the ground.—ED.

REMARKS ON THREE STANDARD FRUITS.

OUR readers are already aware that while it is our desire to make this journal the vehicle of information respecting every thing that is *new*, and really valuable, among fruits and flowering plants, it is still more strongly our wish to extend as much as possible the knowledge of such varieties as have been tested here, and really proved to be *standard* sorts, rather than such as are yet perhaps only to be classed among the speculations of dealers in trees and plants. We shall therefore continue, from time to time, our remarks on this subject, commenced in the July number.

I. HULING'S SUPERB PLUM.

It is remarkable how little this fine plum is known. It is not enumerated in the Catalogue of the Horticultural Society of London; and it exists only in a few collections in this country. Still it is at least twenty years since it originated, and the first description of the fruit given by the elder PRINCE, in his "Short Treatise on Horticulture," was published in 1828. It was stated truly, in that work, that "it is larger than the Washington," and it was considered at that time to hold "the first in rank among plums."

One of the members of the fruit committee of the Boston Horticultural Society remarked to us, a year ago, that Huling's Superb could not really be a fruit of merit, else why should it even now be so little known in the country?

The truth is, for a long time this variety

was almost lost, and existed in many collections merely by name. Eight or ten years ago, we succeeded in obtaining a tree of it in Philadelphia, after a long search in gardens elsewhere. We fruited it, satisfied ourselves of its high merit, and have since had the pleasure of distributing many trees of this variety.

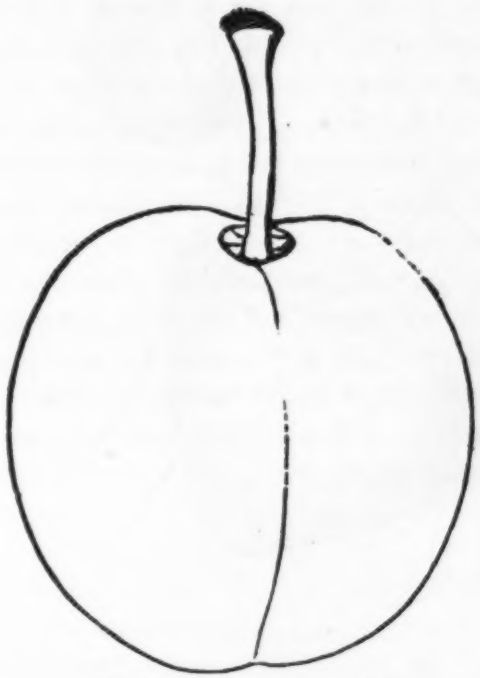

Fig. 46. *Huling's Superb Plum.*

Huling's Superb is one of the most striking and remarkable plums. When fully grown, it is of the largest size, measuring six inches in circumference. The tree is very distinct and remarkable in its growth—the leaves being very broad and large, and the shoots peculiarly stout and blunt, and with a large *shoulder* (or swelling) behind each bud. The growth is thrifty, and the young branches downy.

The description in our work on fruit trees not being complete of this variety, we here subjoin another, drawn up with the fruit before us.*

Fruit very large, roundish oval, with a distinct though shallow suture. Stalk strong and stout, about an inch long, swollen at its junction with the tree; set in a round small cavity. Skin rather dull greenish-yellow, thinly covered with pale bloom. Flesh greenish-yellow not very fine grained, but with a rich, brisk, sprightly flavor, less sweet, but higher flavored than the Washington: it adheres to the stone. It ripens at the middle of August, and is an excellent bearer.

Huling's Superb is not equal in flavor to the *Jefferson*, (which has this season again fully sustained its high character with us); but it is altogether a noble fruit, and we commend it especially to every grower of the plum who has the good strong soil which this fruit tree delights in.

II. THE BLACK PRINCE STRAWBERRY

This remarkably excellent variety has been before noticed by us, and we now give a portrait of the fruit as grown here the past season. The Black Prince Strawberry is not a new variety in England, though it is yet very little known in America. It was described in the Horticultural Transactions and in Lindley's "Guide to the Orchard," fifteen or more years ago, as a "very dark violet fruit, with a solid flesh, rich and high flavored." It is not now ranked as first rate in the London Society's Catalogue; but this may perhaps arise from its not thriving well in the neighborhood of London. Keene's Seedling, which is still, almost unanimous-

* It is quite delightful to correct *ourself* one of the errors, which the ardent pomologists of the new school have not yet been able, with all their industry, to detect in our *Fruits and Fruit Trees of America*. The Huling's Superb Plum is a *clingstone*. We had a fine crop of this fruit three or four years before we prepared that work, but since that time we found our notes were not complete respecting this fruit. Both the Prince's described it, but were silent on this head. We endeavored to obtain some specimens in the summer of 1844 without success, and wrote to three cultivators who had grown it, but they could not settle the point. We therefore stated, on our remembrance, that it was a freestone. Pomona forgive us! It shall be corrected in our next—the seventh—edition.

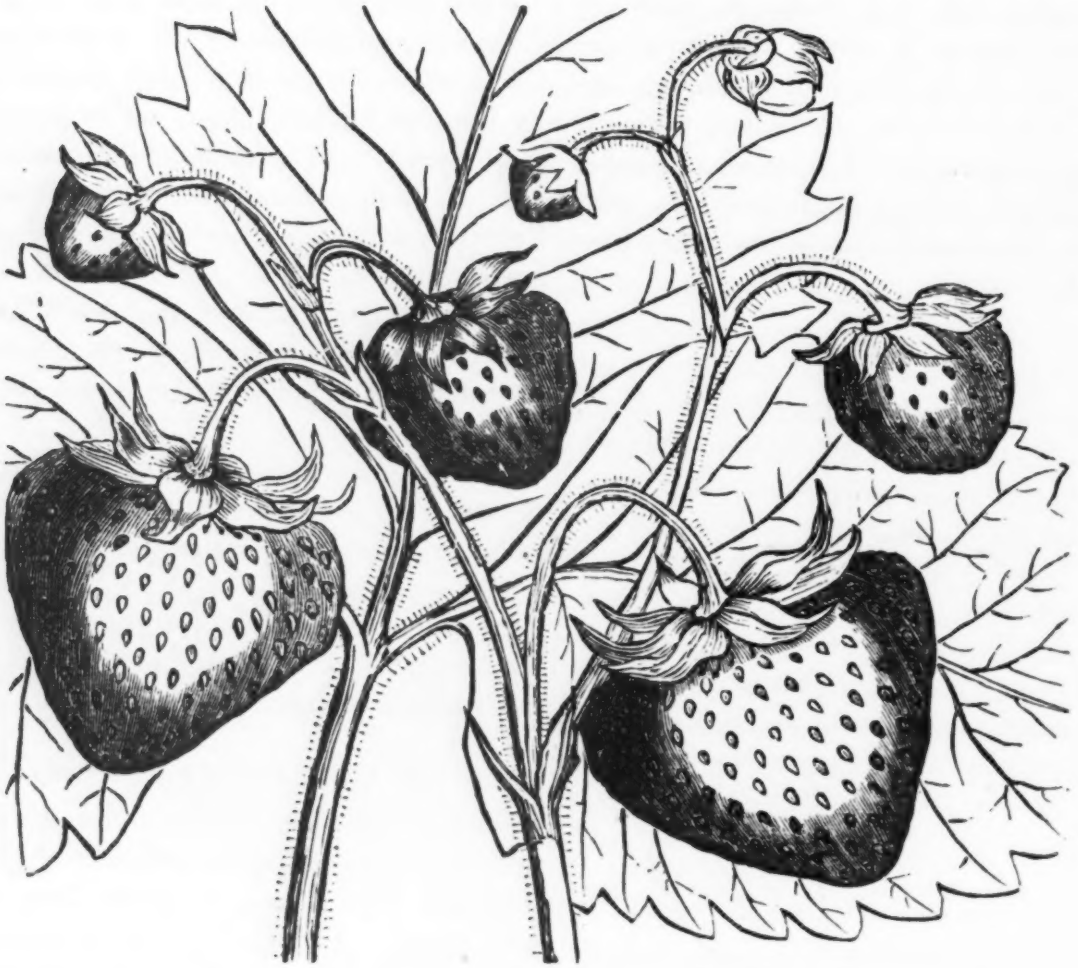

Fig. 47. *The Black Prince Strawberry.*

ly placed at the head of strawberries in England, would have but a small vote in its favor for general cultivation by horticulturists in the United States. Our climate, which is quite unsuited to it, is perfectly congenial to other varieties, and the present among them.

The Black Prince Strawberry we received from England about five years ago. Since that time it has been grown in our gardens, under the most indifferent, as well as under the best culture—on common soil, and on soil well prepared by trenching. It has been left fully exposed at all seasons, and in unsheltered places; and we, therefore, feel warranted in saying, that for hardiness, abundant product, and especially high-flavored fruit, it is not surpassed by any variety that has been tested in this country. In winters, when nearly all the large *Pine* strawberries, left uncovered, have been more or less injured, this has not suffered in the least.

The blossoms of the Black Prince are all distinctly *pistillate.* When planted near a bed of Early Scarlet, Duke of Kent, or Early Virginia, (sorts with an abundance of *stamens,*) every blossom, therefore, sets, and becomes a large and finely formed fruit. In regular and abundant crops, it surpasses every large-fruited variety that we have seen.

In high *flavor,* we consider the Black Prince as standing *unrivalled* in this climate. We speak now chiefly of its quality as

grown in this state. It has not yet been sufficiently tested in the East and West to enable us to speak positively of its merits there; but its exceedingly hardy character affords us the best reason for believing it will prove equally so in those sections of our country.

The *leaf* of this variety of strawberry is large, symmetrically formed; smooth, rather flat and handsome; the color dark, but not glossy on the upper surface. The *fruit* is always large, but scarcely of the largest size; always very regularly formed, ovate, depressed. The color is a deep purplish-red, much *darker* than that of any othe Pine strawberry, and the surface of the fruit is very *glossy* or polished, with the seeds slightly imbedded. The flesh is solid, firm, dark red, and unusually rich and high flavored. The footstalks of the leaves are quite downy. It ripens about the medium season.

III. THE TRUE RED ANTWERP RASPBERRY.

We are induced to give an engraving of this most excellent standard sort, because even now the genuine Dutch variety is yet comparatively little known, except around Boston and New-York. Four or five cultivators of fruits, having good collections, have sent us, lately, specimens of the small

Fig. 48. *The Spurious Red Antwerp.*

and indifferent berry so generally known by this name, asking us to say if such were the true Red Antwerp? It is a small and very inferior fruit, fig. 48, entirely unworthy of cultivation.

The true Red Antwerp is correctly shown in the accompanying illustration, fig. 49. It is every way a fruit of the highest merit, very large, a regular and abundant bearer, of high flavor, and will not, we think, be displaced from our gardens by any new sort. Its fruit is very regularly conical, rather longer and more regularly shaped than that of any other sort.

An opinion of a new fruit cannot be said to be fixed, till it is based upon trials made in various parts of the country. Since the publication of our account of the Fastolff Raspberry, we have received the following note from a higly respectable fruit-grower, near New-York, who raises the raspberry extensively for market. The writer is one whose opinion is one of weight, and his remarks are to the point at the present moment.

"I have read your article on the new English raspberry—the Fastolff. I raise the raspberry largely for market, and having about one hundred good sets of the Fastolff in full bearing, can give an opinion with probably as much confidence as any body else in this country.

"The Fastolff is a very fine fruit, and merits all you say of it. But I do not think it, at least for my purposes, equal on the whole to the real old Red Antwerp, which I have long grown a great quantity of. The Fastolff is not much, if at all larger than the Antwerp, *with the same cultivation*:* it is not richer to the taste; and it has for the market grower the defect of being a *soft* fruit. In other words, it will not bear carriage well. The real Red Antwerp is not injured by being picked or carried to mar-

* You know how a new sort of fruit is always nursed and stimulated into large size.

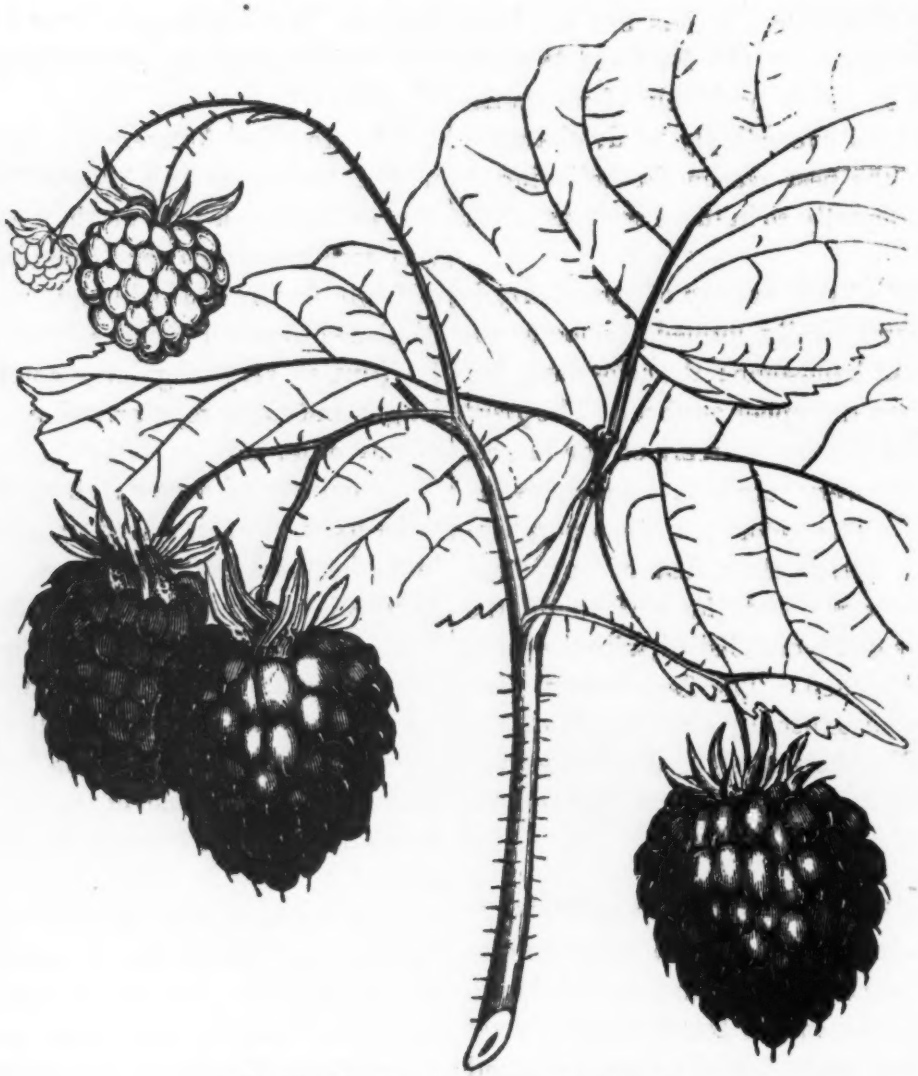

Fig. 49. *The True Red Antwerp Raspberry.**

ket. It cannot be beaten for product, and I am sure will, *in the long run*, be considered the more worthy of cultivation of the two sorts."

The foregoing opinion is doubtless based upon the truth. The Fastolff, though a splendid fruit, will not bear carriage well. We think, however, that it is a somewhat larger fruit, and it appears, so far as we have tried it, rather the hardier of the two, but this is not yet fully established. At any rate, there are no *two* varieties of the smaller fruits better worth a place in the garden than these.

A Successful Mode of Transplanting Trees in Summer.

BY S. G. PERKINS, BOSTON.

[To THE following article, from the pen of S. G. PERKINS, Esq., we ask the attention of our readers, as one of unusual novelty and interest.

Mr. PERKINS, as our readers are already aware, we esteem as a veteran horticulturist, whose practice is not surpassed by that

* Our figure, in the July number, of the Fastolff Raspberry, was very badly executed. In *outline* it shows the genuine fruit correctly, as it appears in common garden culture; but the engraver failed in the cut as a *portrait* of the fruit.

of any other person in the country. Last season, when we examined his interesting garden, near Boston, we were particularly struck by the trees alluded to in this article. Some of them had been transplanted in full leaf the same season; others the previous summer; yet, to our astonishment, they had as luxuriant, and almost as fruitful an appearance as if they had never been disturbed.

Our readers will be struck with the *apparent simplicity* of Mr. PERKINS' process. We may remark, however, that it is the simplicity of profound knowledge. Novices, therefore, ought to be told that it is supposed by so skilful a practical man as our correspondent, that the *transplanter* who undertakes to follow his mode, is a man who knows his business, and has the same respect for *fibrous roots*, that a pious monk of the fifteenth century had for a fragment of the true cross.

We have never heard of any success on the other side of the Atlantic in transplanting trees in full growth. Notwithstanding this, and the fact that our climate is by no means a very favorable one for transplanting, Mr. PERKINS' success, by this—his own mode, is complete and satisfactory. Though it may not be of such general utility, as to take the place of spring and autumn planting, yet there are numerous instances where it will be of great value.—ED.]

.....

DEAR SIR—In the spring of 1844, I intended to remove a small pear tree from my private nursery to one of the quarters in my garden; but being too much out of health to attend to my garden, I forgot or neglected to have it done.

The latter part of May, when the trees were in full leaf, I was passing through my grounds, and casting my eye on the tree in question, it brought to mind my omission, and that I had lost a year in filling up the spot in the quarter where I intended to plant it. The tree was very vigorous, about four and a half or five feet high, grafted on a quince stock, and of a kind of which I had no duplicate; and I was, therefore, desirous of giving it a better situation than the one it occupied. While thinking of my blunder, it occurred to me that the tree might be removed then, in full leaf, if proper care was used in preparing it beforehand. I accordingly called my man "Patrick," and directed him to cut a trench round the tree as deep as its roots went into the ground, and about three or four inches wide. This being done, I had the trench filled with water, and covered over to prevent the earth from getting into it. In this state the tree was left between thirty and forty hours, when the ball of earth round its roots was found to be very firm and solid, so that the tree could be removed with perfect security; and it was actually done with perfect success, so much so that the tree never stopped growing, and made considerable wood during the summer. I soon after, about June 1st, removed several other pear, peach, and apricot trees with the most complete success.

Encouraged by this success, I removed on the 18th of June, 1844, ten trees to a trellis that I had recently made, viz., four plums, four peaches, and two apricots, all of which grew rapidly that year, and so filled the trellis, that I was obliged to take the peaches away this summer, 1845, in the early part of August, and place them on another trellis which I had built.

I continued, during the summer of 1844, to remove trees in full leaf, and some with *the fruit on them*, until the middle of September, and out of seventy-six trees removed I lost only six—seventy having succeeded perfectly. One tree that was removed contrary to my advice, after having been pre-

pared only twenty-four hours, lost the earth in part from its roots, and after lingering some time died. The reason of this was, that time was not given for the superabundant water to be discharged from the ball, and it of course was not as firmly consolidated as it would have been, had it been left six or eight hours longer, before it was taken up. My gardener now became a convert to my system, and had what he calls a "turban" made to tie round the ball before it is removed. This has been very serviceable, for with the aid of this cloth, we can remove balls so large, that they require three strong men to lift them. This year, 1845, I have removed, during the summer, many fine trees with the fruit on them, with perfect success; some of them were peaches, trained trees, five and six feet high, and spreading six and eight feet on the trellis.

The advantage of removing young trees in summer, when they are growing vigorously, over that of removing them in the spring or autumn, is as follows:

If you remove in the spring or autumn, you must either uncover the roots, or you must remove them with a ball of earth. If you uncover the roots, you put the tree back a year; but you have the advantage of seeing and cutting out all the bad roots; if you do not uncover the roots to examine them, you are liable to have your tree fall off and die during the summer, from the defective state of its roots. But if you remove the tree in the summer, at any time from the last of May to September, when it is growing vigorously, you may be sure that the roots are good, and the tree will never cease growing, if the precautions here mentioned are observed in its preparation.

Hence, I find trees removed this summer, 1845, with the fruit attached to them, have gone on to complete the growth commenced before removal, and to increase the size and mature the fruit as if they had not been transplanted; and these trees will, I have no doubt, bear a full crop of fruit next year, if they are permitted to do so. Whereas, if the trees had been removed in the spring, and the roots stripped or laid bare, they could not have been permitted to bear at all this year, and but little fruit the next, without injury to the trees. Peaches, plums, and pears on quince stocks, bear transplanting in this way in the summer, without stopping their growth, provided they are vigorous thrifty growing trees at the time they are taken up.

When standard trees are transplanted in the fall or autumn, it is best to support

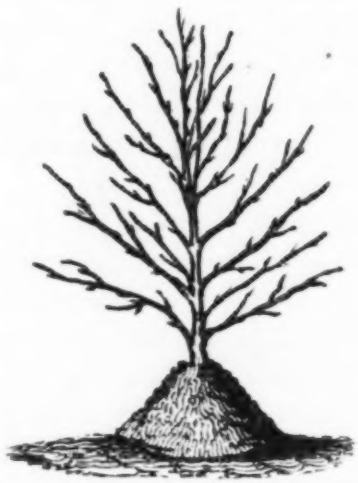

Fig. 50. *Conical mound to support a transplanted tree.*

them with a cone of earth, about twelve or eighteen inches high, according to the size of the tree. (See fig. 50.) This mode is far preferable to *staking*, as it supports them in an upright position without chafing the tree, as a stake is apt to do; besides the earth covers and protects the newly planted roots from the effects of the winter's frost, which will heave them, if the ground be moist, unless they are well *mulched* or covered with litter.

Standard trees, when transplanted in the autumn in the ordinary way, will be found

in the spring perfectly upright, if treated in this manner, and the earth may be then levelled, and the tree will remain firm in its position.

* * * * *

The foregoing is an extract from my memoranda of practice, and was written last autumn. I have only to add now that my anticipations regarding the success of the trees referred to have been entirely realized. They are as fruitful and luxuriant as I could desire. I will remark also, in addition, that I have found the best mode of *watering* the trees after removal, is to leave a narrow trench open, outside of the extremity of the roots, (after the tree is planted;) which being poured full of water, and left twenty-four hours before being filled with earth, will greatly promote the growth of the newly transplanted tree, without disturbing the ball which surrounds the roots. Respectfully,

S. G. PERKINS,

Brookline, near Boston, Sept. 2, 1846.

Climbing and Pole Roses for Hardy Culture.*

BY ROSA, OF PHILADELPHIA.

BEAUTY, or QUEEN OF THE PRAIRIES, is unquestionably as yet the best of the Prairie family; in rich mellow soil, it will grow twenty feet in a season, and is admirably adapted for either a column, pillar, or arbor. Its perfectly cupped, rosy-lilac flowers are produced in clusters; the petals have frequently a stripe of white, and bear the hot sun without injury.

PURPLE or PERPETUAL PRAIRIE, if highly cultivated, will frequently produce a succession of flowers. In color, it is a few shades darker than the former; the flowers are not so large, neither so well cupped, though perfectly double.

MADAM LAFFAY, *hybrid perpetual.* Blooming three or four times in the season, of a bright rosy-red color; large, perfectly formed; fragrant; with its large, rich, luxuriant foliage, is peculiarly attractive. I have a pillar of it six feet high, and even when out of bloom its dark shining green is very agreeable.

CERISETTE, *hybrid China.* Bright red; very double; neat form; grows freely; flowers very profusely, and though blooming only once in the season, is very attractive in any collection.

FULGENS, *hybrid China*, inclines to a bright scarlet, with a tinge of carmine color; perfect cupped form; medium size; fragrant; of rather slender growth, unless under very stimulating culture, when it makes strong wood that produces an abundance of bloom, but if severely pruned, will not show a flower.

GLOIRE DE ROSEMENE, *Bourbon*, I notice for its profusion and continual succession of bloom, of nearly a bright scarlet color; though only half double, yet on the lawn, pleasure ground, or in the distance, it forms a brilliant object; grows freely.

BRENNUS, *hybrid China.* This old favorite is not so extensively known as it deserves. Its bright scarlet-crimson flowers, exceedingly double; in size, the superlative degree; grows luxuriantly; continues a considerable time in bloom, and whether in bud, or full blown, is always perfect.

BOURSAULT ELEGANS, or AMADIS, generally the first flower of the season; its very long flexile shoots adapt it admirably for an

---

* Continued from page 30.

arbor, or to cover any disagreeable object; when in bloom, it is one mass of shaded crimson-purple; very hardy, growing in any situation.

Russelliana, or Cottage Rose, is another luxuriant growing rose, and will form a pyramid from the base to the summit of great beauty; the colors are scarlet, rich crimson and purple; the flowers are double, and produced in large clusters. It also makes a good stock for budding other varieties upon.

Prince Albert, *hybrid perpetual.* A celebrated rose of perfect form, large and fragrant, of a purple or rich crimson color, according to the season; a constant bloomer in rich soil; grows luxuriantly, quite hardy; makes a fine pillar of six or eight feet, and indispensable in the smallest collection.

Rivers' George the fourth, *hybrid China.* Every person, pardon me, every lover of roses, has heard of George the Fourth. With few equals, and none to surpass it of its color, it grows freely with me, though I presume it will be rather tender in a more northern latitude. The flowers are full four inches in diameter, of a very rich crimson color; in profusion; makes an elegant pillar of about ten feet high.

Vandael, *hybrid China,* in size and form is similar to the Brennus; of a rich, shaded violet-crimson color; quite fragrant; grows luxuriantly; greatly admired.

Violet de Belgique is also a hybrid China, of a *coquettish* character, being some seasons of a crimson-violet color, while in others of a rich bluish-violet (approaching to what has been often said to exist, a blue rose—a color that we never expect to see in the family;) flowers of medium size, very perfect, fragrant and quite desirable; with a little stretch of the imagination may be called a *blue rose.*

Belle Theresa, *hybrid China.* The darkest of Roses, but to show its color requires to be kept from the sun. The flowers are under medium size, produced in profuse clusters of rich dark purple-crimson; a rampant grower.

King of Hybrids, or Saunder Panache, is as yet the only striped rose of this pillaring family; perfectly double, cup formed, of a bright rose color, distinctly and invariably striped or spotted with blush-white; grows freely, but if pruned severely will not produce a blossom. It will, I doubt, be too tender for very cold latitudes, though perfectly hardy here.

The above are descriptions from nature, feebly given I admit, though accurate in the whole. *Pruning* is of vast importance in procuring a profuse bloom—even many practical men show very little knowledge in pruning the different classes of the Rose. The shoots of those now described may at any time be thinned out, where too thickly crowded together. Any time from November to March, (or farther north, in March or April,) give them a general pruning by cutting back about one-third off the extremity of the shoots. The tender sorts are greatly benefitted by a slight protection of spruce, cedar or fir branches. Good cultivators always cover the roots with leaves, manure, or any convenient litter during winter, and enrich the ground every spring with thoroughly decomposed manure or leaf-mould from the woods.

Rosa.

Preservation of apples.—The use of dry sand was recommeuded by the late Noah Webster, as excellent for preserving apples through the winter. When packed in it the flavor is not lost, and all mustiness arising from evaporation of moisture prevented

ON THE USE AND ABUSE OF GUANO.

BY THE VICE-PRESIDENT OF THE BUFFALO HORTICULTURAL SOCIETY

Much as has been said and written, *pro* and *con*, as to the merits of guano as a fertilizer, still, as an amateur florist, I would beg your permission to add my experience to the list. I would ask leave, at the outset, to say a few words of censure to very many professional florists, whom I have met and conversed with on this subject; and who were deeply prejudiced against its use. One says, "I have used guano, and it has burned up my plants." Another: "It has not met my expectations, and therefore I find it useless." The most patriotic objector is a writer in the Agriculturist, who exclaims, "*'Tis a national sin to be importing foreign fertilizers*," &c., &c. Upon inquiring as to their mode of application, the sequel is soon told! Some have used it in a crude state, merely intermixing a quantity with the surface soil in the pot, as a top-dressing; another has sprinkled the surface only, and left its essential volatile parts to evaporate. Others mixed it with water till it reached the color of *Brown Stout*, and kept the soil saturated, and even, in some cases, syringed the plants with it. And others, again, adopted the principle, that if little was good, much must be better. And thus it is, that one of the greatest aids to the green-house and conservatory, has been anathematized and condemned, from ignorance and misapplication, by the very individuals that should, and would, under proper management, be highly benefitted by it.

And while here I might stop to lament the fact, that so few of our florists and gardeners are sufficiently educated and liberal to draw conclusions, and judge aright any innovation in the routine of their labors, which the skill and genius of the few may produce for their benefit. Many of them are good practical *mechanical* men; they can mix a compost according to the old receipt, and grow tolerably well the plant, but physiologically and theoretically know but little of either plant or compost. A professional florist showed me the other day, a pot sowed with tender and valuable seed, which was placed immediately under the glass in order to get *light*, that it might assist and ensure its germination! not recognizing nature's forcible lesson of fallen leaves, &c., to hide and *shade* the seed from light, which would retard those chemical changes so necessary to stimulate its vital powers into action. Another was sorry that he had dabbled with books; he would not give a fig for all the periodicals in the country to assist him; he cultivated better before he began to read, than he has since; and dates his bad luck from the period when he began to read books and use guano! These then are the opposers of guano, and I assure you the illustrations are not over-wrought pictures, but emanating from men who have extensive ranges of both *glass* and grounds. They seem to adhere rigidly to the old maxim, "*This* is the field my father grew his barley in, *that* his oats; I do so likewise."

My experiments prove satisfactorily to me, that if a plant is in a proper medium to grow, that is, sufficient light and heat, with a light loamy soil for its roots to work in, the judicious application of guano will make it perform miracles, compared to any other fertilizer that can be applied to it. It seems to give new energy to every part; the vital forces of the plant are directly acted upon; the obscure axillary buds, that have lain dormant, now burst, and the plant puts

on its utmost luxuriousness of dark green foliage.

I have noticed a fact which strongly proves the power of guano in inducing a vigorous flow of sap. Many of my Geraniums, that had lain dormant for months, upon being stimulated with guano, threw out adventitious buds, clusters of leaf, stem, flower buds, &c., all in a hard knotted ball, varying in size from that of a pea to a common marble, greatly to the surprise of those persons who had never before seen such specimens.

A *Calla ethiopica*, in an eight quart pot, by being grown in a damp, warm place, and watered regularly with guano water, twice per week, (using in the water the full of a teaspoon of the guano each time,) threw up a continuous growth of flowers and leaves six feet in height. The leaves were often compared to those of the mammoth Rhubarb, and the flowers were certainly twice, if not three times, the usual size. This plant was not out of bloom from February to August, and was exhibited before the Buffalo Horticultural Society each month. With these plants I have experimented with all the various liquid manures, but with none so successfully as the guano.

An *Amyryllis johnsoni*, by a similar treatment, bloomed magnificently. It threw up ten flowers on a couple of stems, two feet four inches high, and an inch and a quarter thick, covered with a beautiful bloom; this was in February. After blooming, it was laid aside for the season, but in July, it burst again, and had six flowers on one stem, larger and finer colored than the first. This stem ran up with great rapidity, growing more than an inch per day. It is now going out of bloom, and maturing its seed, which I intend shall be well taken care of. The reason, probably, why this bloomed so early in the season, was that my green-house was kept at a temperature of sixty degrees in order to forward grapes.

Geraniums are particularly fond of guano, or the guano is fond of the Geraniums. I never had so fine a bloom from any other means. The plants grew remarkably thrifty, made fine shoots, and the flowers were unusually large, as compared with others of similar kinds. Very many had seven petals instead of five, and the colors were clear, rich, lustrous, and well defined.

Roses cap the climax, with guano culture, and, as a juvenile amateur in my garden frequently observed, "they really hop." A small cutting of the *Boursault grandiflora*, which I carried home last summer *between my teeth*, I carefully nursed into a good growth during the season. This spring it shot up astonishingly, putting forth up to this time six canes of vigorous growth, some six to eight feet high, besides a considerable number of fine blossoms. It is now growing completely rampant. A *Chromatella* and a *Solfaterre*, which I purchased in New-York in May last, so small that I carried them both in my pocket wrapt in a bit of moss, have done equally well. (I pot my Roses in a mixture of sandy loam, with one fourth fine charcoal, and about the same quantity of decayed wood from old stumps.) These Roses have made great growth, and the guano was soon felt. The *Solfaterre* has a shoot which measures over six feet, with as splendid a leaf in size and lustre as ever graced a thorn-covered branch. The *Chromatella* has put forth more shoots, and being different in habit, it is more bushy, but remarkably thrifty.

I have also experimented upon some seventy or eighty other Roses, and universally find that a judicious application of guano is the *sine qua non* in Rose culture. Another fact worth noticing is, that the Red Spider, *Acarus telarius*, which has before

greatly troubled me, has not shown itself in the guano culture, most probably from the strong, healthy, and quick growth of the plants.

I might continue to enumerate other plants as being equally benefitted by this fertilizer. The *Cactus*, the *Grape*, (I have twenty varieties,) the *Camellia*, *Oleander*, *Passiflora*, *Abutilon* (seven feet high, in full bloom, one year old,) *Tree Pæonies*, *Fuchsias*, &c., &c. Indeed, there are no green-house plants in my collection, which do not appear to show conclusively the marked advantage derived from this fertilizer. It is so easy in appliance, so portable and so cleanly, and withal so cheap, as to be within the means of all cultivating plants; containing within itself the constituent aliment necessary for the growth of stem, flower, fruit and seed, it does indeed come nearer to an universal compost than any other known.

It is, then, for the purpose of making more generally known the virtues of this fertilizer, and that the many amateur florists like myself, may be put in possession of these facts that I now trouble you. It has been usual with me to keep a hogshead in the stable for *liquid manure*, which has been used against and compared with guano in my experiments, but that is now abolished.

My method of using and applying the guano is this: To a barrel of good light yellow loam, intermix thoroughly half a bushel of well broken charcoal, and half a peck of good Peruvian guano. These should be well worked together, dry, but much as a man would temper mortar, rendering all fine and free from lumps of the guano, and kept in a box or barrel covered up from the weather. It is fit for use immediately, but is better by standing a few weeks. In applying it, I use a trowel full or more, according to the size of the plant, pot, &c. In potting anew, use one third compost to the amount of soil required, well intermixed. When used in a liquid form, it is better to mix for some days before using, bearing in mind to so keep it, that it shall not evaporate its volatile parts. A heaped table spoonful of the guano to a gallon of fresh rain water, are the proportions; this again can be diluted for young plants, and it is *decidedly better to begin its use gradually*. Broken charcoal is a vastly better drainage for pot culture than any thing else, as it will absorb and fix the ammonia, and the roots and spongioles will delight to revel and entwine amongst it.

In conclusion, be careful in applying this stimulant that your plant is in a *growing state*, avoiding this strong mixture while dormant, but when it has taken a start, follow it up, attentively watching it, reducing or adding as the effects will readily show. A plant in full growth will take a liberal supply, and be highly benefitted by it, while the same quantity would kill two similar plants in the dormant state. W. R. Coppock.

Buffalo, Aug. 15, 1846.

Description of two new Raspberries.

BY DR. W. D. BRINKLÉ, PHILADELPHIA.

1. THE CUSHING RASPBERRY.

This new Raspberry I named the *Cushing*, in honor of J. P. Cushing, Esq., of Boston. It originated from a seed of a berry of the new Double Bearing, imported by Mr. Robert Buist of this city. The seed was planted June 27th, 1843, and vegetated in the spring of 1844. It fruited for the first

time in the autumn of 1845. Only one berry, however, matured at that time, in consequence of the accession of cold weather. It fruited again this summer—the fruit beginning to ripen June 12. *Fruit* large, roundish-conical, crimson, and of fine flavor. *Leaf* very much plaited, and very regular in form. The stool has sent up three shoots this season, one of which is at this time five feet high. The Cushing Raspberry is extraordinarily productive. The prickles are brown.

II. THE ORANGE RASPBERRY.

This Raspberry originated from a seed of a berry of Dyack's Seedling, imported by Mr. Buist. The seed was planted July 13th, 1843, and vegetated in the spring of 1844. During the winter of 1844 and '45, it was kept in a pot in a room without fire, with a southern exposure. Early in the spring of 1845, it blossomed and was set in the yard rather too soon; some of the berries, however, matured. In the course of the summer it was taken out of the pot, and planted on the west side of a board fence. It fruited again this season; the fruit commenced ripening July 8th, nearly a month later than the Cushing, within one foot of which it grew. Whether or not this lateness of ripening was owing to any accidental cause, I am unable to say; next season will determine this question.

Fruit as large or larger than the Yellow Antwerp, ovate, of a beautiful orange color, and excellent flavor. *Leaf* very irregular in form, scarcely two precisely alike; generally not so pointed as the Cushing, but broader. It has sent up five vigorous shoots, one of which is now seven feet high. It has white prickles.

The fruit of Dyack's Seedling, the parent of the Orange, is of a deep crimson color.

W. D. Brinklé.

Philadelphia, Aug 3d, 1846.

.....

[Dr. Brinklé has, as we learn from many persons who have seen them, been remarkably successful in originating new varieties of Strawberries and Raspberries, to which he has devoted much attention for some years past. The foregoing are accurate descriptions of what, we believe, will be found acquisitions to this class of fruits. We trust they will soon be offered to amateurs.—Ed]

THE NEW FRUIT GATHERER.

Have our readers never contemplated with a feeling of delight, a fruit tree, in the full youthful perfection of its foliage and fruit; its thousands of leaves, young and tender, trembling and fluttering in the slightest breeze; its smooth and tender bark, welcoming gladly the serene air; and its ruddy or golden treasures, half hidden among the verdure, glowing in the mingled morning dew and sunshine, like large crystals of ruby or topaz?

Possibly they have never beheld the matter in so poetical a light. If not, let us turn it about, and look upon it in a more economical one.

Suppose one wishes to gather these tempting fruits, which we will call simply good "gages" and "pippins." If one climbs the tree, the most natural way, one can only reach that little neighborhood of branches, which have strength and substance enough to bear the absolute weight of a man. If one mounts a ladder, only such additional points can be gained as are

strong enough to bear the sway of half the weight of the man and ladder together. Far—far beyond the reach of the longest arm, hang ripe, ruddy, tempting specimens which are larger, fairer, sweeter, than any that have yet fallen into our basket, well laden though it may be.

This is not the proper conduct of a *domesticated* fruit tree, as we are told by the botanists all our orchard trees are. To bear its finest specimens so provokingly out of reach, that their rightful owner cannot possibly gather them! What can be the meaning of it? Is this a wild and untamed trait, which is not yet rooted out of our most *thorough-bred* and civilized varieties?

To be serious, there is a positive inconvenience, that is felt by all cultivators of fine fruit—we mean the difficulty of gathering it from many parts of the tree; which because they are the thriftiest parts, always furnish the best samples.

Fig. 51. *The New Fruit Gatherer in operation.*

Various kinds of *fruit-pickers*, little instruments affixed to poles, have been invented long ago, by which to overcome this inconvenience. But they never quite supplied the want. They were always troublesome and tedious in practice, and consequently they have never come into general use.

A few weeks ago, there was put into our hands an exceedingly neat and efficient little

machine, which, after a fair trial, we cannot but think quite a prize to all amateurs of fruit. It is the PATENT FRUIT GATHERER, invented and brought into use this season by Messrs. SEDGWICK AND BROOKS, of Poughkeepsie, N. Y.

The instrument is at once simple, highly ingenious, and well adapted to the end in view. It consists of a set of converging springs made of strong brass wire, at the extremity of which is a sliding open wire circle. To this circle or loop, is affixed a long hose of common glazed cotton. The whole apparatus is shown in the accompanying sketch, Fig. 51.

The apparatus is affixed to the end of a strong reed pole, such as is commonly used in fishing. This enables the operator to reach specimens on the most distant branches of a fruit tree. Holding the pole in one hand, and directing the end

Fig. 52. *The Fruit Gatherer open.*

of the instrument to the fruit, the circular mouth receives it, and with a slight pull of the other hand on the *hose*, the springs close as in fig. 53, the fruit separates from the branch, and slides gently down the hose into the basket. If it is a heavy specimen, like a Beurré Diel pear, or a Gloria Mundi apple, that hand of the operator which is upon the hose may give it a slight check to break its fall as it passes down.

The whole length of the pole is about eighteen or twenty feet. This would be unnecessarily long for many trees. A joint is therefore made at half length, by which

Fig. 53. *The Fruit Gatherer closed.*

it is easily separated into two parts, and half, or the whole length used. An ingenious *ring-loop*, in the *hose*, enables one, in a moment, to separate it also in two parts, corresponding to the length of the pole, or as quickly unite the whole again.

The great advantage which this new fruit-gatherer has over the old ones, consists in the *hose*. This conveys the fruit to the basket as fast as one person can pick it. In the old instruments, the hose was only a small bag or net at the end of the pole, so that thrice as much time was consumed in awkwardly reversing the pole, to take out each fruit, as was expended in actually plucking it.

The best proof, perhaps, that we can offer our readers of the value of the instrument, is, that although it is only a few weeks since Messrs. SEDGWICK AND BROOKS have offered it to the public, there is already as much demand for it as they can supply, with a number of men constantly employed in its manufacture.*

* There are two sizes made. The larger one is best for apples and pears; the smaller one for plums, apricots and other delicate fruits. The price is from $1.50 to $2.00, and the agent in New-York is A. B. ALLEN, Agricultural Warehouse, 187 Water-street.

Several of our orchardists on the Hudson have bought a number of them, and think it will prove a valuable assistance, even in gathering fruit on a large scale.

We commend it at all events as a most admirable implement for the amateur fruit-grower—one that will save his best and finest specimens of fruit, the limbs of his trees, and perhaps some little uneasiness of mind.

Do Varieties of Fruit run out?

BY HENRY WARD BEECHER, OF INDIANOPOLIS, IA.

[MANY of our readers are not perhaps aware that one of the ablest and most vigorous writers on horticultural subjects, in the United States, is Mr. BEECHER, of Indiana. We borrow the following interesting article on the subject of the deterioration of varieties from the last number of the Western Farmer and Gardener.

Mr. BEECHER we are glad to welcome as an ally of our own. He dissents from Knight's theory, that races soon wear out. We have also had the gratification, since our views, which are essentially the same, were published in our work on Fruit Trees, to see them substantially endorsed also by Professor LINDLEY, the highest European authority.—ED.]

.....

We find in the American Agriculturist for August the following paragraph from a correspondent:—

"My idea is that a tree has a limit as to age, and that in propagating any particular kind of fruit by ingrafting or inoculating, you do not renew, you merely continue. Am I to understand you as controverting this position? Do you mean to be understood as asserting that any particular kind of fruit, the Newtown Pippin, for instance, may be kept in existence forever? My idea is, that nature has, in the vegetable as well as the animal kingdom, provided one, and only one way for the renewal of life, and that is by the seed. That by engrafting you merely continue what is already in existence—that the tree which you obtain by ingrafting, is no younger than the tree from which that particular variety was originally obtained."

Is there such similarity between animals and vegetables, in their organic structure, development, and functions, as to make it safe to reason upon the properties of the one from the known properties of the other?

It is admitted that the lowest forms of vegetable existence are extremely difficult to be distinguished from a corresponding form of animal existence. As we approach the lower confines of the vegetable kingdom, flowers, and of course, seeds, disappear. The distinction between leaves and stem ceases; and, at last, the stem and root are no longer to be separated, and we find a mere vegetable sheet or lamina whose upper surface is leaf and whose lower surface is root. In a corresponding sphere animal existence is reduced to its simplest elements. Whatever resemblances there are in the lowest and rudimentary forms of vegetable and animal life, it cannot be doubted that when we rise to a more perfect organization, the two kingdoms become distinct, and the structure and functions of each are in such a sense peculiar to itself, that he will grossly misconceive the truth who supposes a structure or a function to exist in a vegetable, because such structure or functions exist in an animal, and *vice versa*. To be sure, they resemble in *generals* but they differ in *specials*. Both begin in a seminal point—but the seed is not analogous; both develop—but not by an analogous growth; both require food, but the selection, the digestion, and the assimilation are different. The mineral kingdom is the lowest. Out of it, by help of the sun and air, the vegetable procures its materials of growth; in turn, the vegetable kingdom is the magazine from which the animal kingdom is sustained; to each, thus, the soil contains the original elements; the vegetable is the chemical manipulator, and the animal the final recipient of its products. The habit of reasoning from one to the other, of giving an idea of the one by illustrations drawn from the other, especially in popular writings, will always be fruitful of misconceptions and mistakes.

The next idea set forth in the paragraph which we review, is, the *essential dissimilarity of buds and seeds*. The writer thinks that a plant from a seed is a *new* organization, but a plant from a bud or graft (which is but a developed bud,) is but a continuation of a previous plant. With the exception of their integuments, a bud and a seed are the *same thing*. A seed is a bud prepared for one set of circumstances, and a bud is a seed prepared for another set of circumstances—it is the same embryo in different garments. The seed has been called,

therefore, a "primary bud," the difference being one of *condition* and not of *nature*.

It is manifest, then, that the plant which springs from a bud is as really a new plant as that which springs from a seed; and it is equally true, that a seed may convey the weakness and diseases of its parent with as much facility as a bud or a graft does. If the feebleness of a tree is general, its functions languid, its secretions thin, then a bud or graft will be feeble,—and so would be its seed; or if a tree be thoroughly tainted with disease, the buds would not escape, nor the trees springing from them—neither would its seed, or a tree springing from it. A tree from *bud* of the Doyenné pear is just as much a new tree as one from its *seed*.

The idea which we controvert has received encouragement from the fact, that a bud produces a fruit like the parent tree, while, often times, a seed yields only a *variety* of such fruit. But, it is probable that this is never the case with seeds except when they have been brought into a state of what Van Mons calls, *variation*. In their natural and uncultivated state, seeds will reproduce their parent with as much fidelity as a bud or a graft.

The liability of a variety to run out, when propagated by bud or graft, is not a whit greater than when propagated by seed, *in so far as the nature of the vegetable is concerned*.

But it is true that the conditions in which a bud grows render it liable to extrinsic ills not incidental to a plant springing from seed. A seed emitting its roots directly into the earth, is liable only to its own ills; a bud or graft, emitting roots through the alburnum of the stock on which it is established, into the earth, is subject to the infirmities of the stock as well as to its own. Thus, a healthy seed produces a healthy plant. A healthy bud, may produce a feeble plant, because inoculated upon a diseased branch or stem.

Instead of a limitation in their nature, there is reason to suppose that trees might flourish to an indefinite age were it not for extrinsic difficulties. A tree, unlike an animal, is not a single, simple organization, it is rather a *community* of plants. Every bud separately is an elementary plant, capable, if disjoined from the branch, of becoming a tree by itself. In fact, each bud emits roots, which uniting together, go down upon a common support (the trunk) and enter the earth, and are there put in connection with appropriate food. Every fibre of root may be traced upward to its bud from which it issued.

In process of time, the elongation of the trunk exposes it to accidents; the branches are subject to the force of storms; in proportion as the distance from the roots increases, and the longer the passages through which the upper sap, or downward elaborated sap travels, the more liabilities are there to stoppage and injury. The reason of decline in a tree is not to be looked for in any exhaustion of vital force, in the organization itself, but it is to be found in the immense surface and substance exposed to the wear and tear of the elements.

It would seem, if this view be true, that no bounds can be placed to the duration of perrennial plants, if, by any means, we could diminish their exposure, by reducing their expansion, by keeping them within a certain sphere of growth. *Now this is exactly what is accomplished by budding.* A bud, far removed on the parent stock from the root and connected with it through a long trunk, is inoculated upon a new stock. It now grows with a comparatively limited exposure to interruption or accident. The connection with the soil is short and direct.

In this manner a variety of fruit may be perpetuated to all generations, *if the laws of vegetable health be regarded in the process.* Healthy buds, worked upon healthy stocks and planted in wholesome soil, will make healthy trees; and from these another generation may proceed, and from these another. By a due regard to vegetable physiology, the Newtown pippin, and the Seckle Pear, may be eaten two thousand years hence, *provided, always*, that expounders of prophecy will allow us the use of the earth so long for orchard purposes. A disregard of the laws of vegetable physiology in the propagation of varieties, will, on the other hand, rapidly deteriorate the most healthy sort. There is no clock-work in the branches of the tree, which finally runs down past all winding up; there is no fixed quantity of vitality, which a variety at length uses up, as a garrison does its bread. Plants renew themselves and every year have a fresh life, and, in this respect, they differ essentially from all forms of animal existence. Any *one tree* may wear out; but a *variety*, never.

We need not say, therefore, that we dissent from Knight's theory of natural exhaustion and from every supplement to it put forth since his day. Van Mons' theory of *variation* and the tendency of plants to return toward their original type, is to be regarded as nearer the truth.

REVIEW.

THE TREES OF AMERICA: *Native and Foreign, Pictorially and Botanically delineated, and scientifically and popularly described; principally, with reference to their Geography, History, Propagation, Culture, Diseases, &c., &c., their economy in the Arts, introduction into Commerce, and their application in useful and ornamental Plantations. Illustrated by numerous engravings.* By D. J. BROWNE. 1 vol. octavo, 520 pp. $5. HARPER & BROTHERS, New-York.

THE forest trees of America: what a grand subject for a writer of genius, who is at once a profound observer, and an enthusias-

tic lover of nature! How one's imagination revels in the thought of ancient forests, which yet stand in North America, whose beginning was before Columbus had even projected his seemingly wild scheme of discovering a new world. We have ourselves stood beside two oaks, whose ages were from eight hundred to a thousand years. Douglass, the English botanist, speaks in terms of rapture of the fir forests of California—the magnificent *Picea grandis* and *nobilis*—trees two hundred feet high, whose trunks measure from twelve to forty feet in girth. The latter species—the NOBLE FIR—abounds in the mountains of Northern California, where it covers vast tracts. "I spent three weeks," says he,* "in a forest composed of this magnificent tree, and day by day I could not cease to admire it." Yes, though our country is destitute of ruined castles and old tottering strongholds, to tread whose crumbling and time-worn passages carries the mind back in a moment over so wide a space in the history of our race, yet it is scarcely less thrilling to walk beneath the shade of a centennial tree—a real living, growing thing like ourselves, which has stood firm in its place, while empires have tottered and been swept away—while an unknown world has been discovered—and while a new nation has sprung into existence, whose rapidly increasing millions seem scarcely content with an entire continent.

Do our readers know how prodigal nature has been to this continent in the matter of forest trees? The whole number of timber trees indigenous to Great Britain, which grow thirty feet high or more, is only twenty-nine; the whole number of the same class, natives of France, only thirty-four: while North America enumerates forty species of Oak alone, and thirty-nine sorts of Pine. The total number of the species of trees and shrubs indigenous to this country is about 530. What a forest wealth, compared with that of Europe! Magnolias — Rhododendrons — Kalmias — Tulip Trees, and the like: how meagre would the choicest parks and pleasure grounds of Europe appear, were they stripped of these, their richest treasures of foliage, borrowed from the American soil!

We welcome, therefore, this contribution of Mr. BROWNE's to the gardening literature of this country with pleasure, because we consider the subject he has chosen one in the highest degree interesting and important to every man, whether he live in the country or in town. If he is confined within the narrow limits of a city, he cannot but feel grateful for the patient and enduring trees, that amid the dust and confined air, by the side of streets, and in the midst of small parks, still do not refuse to yield him a cool shade: if he have the good fortune to live in the country, he cannot fail to utter many daily prayers of thanks for the ever varying beauty and loveliness of trees. Not to wish to know something of the character and history of trees, is as incomprehensible to us, as not to desire a knowledge of Niagara, or the Alps themselves.

Every thing that will help to diffuse this information is well for our people. Mr. BROWNE's volume will do it to a considerable degree, because it is not a very dear book, and it conveys a great deal of information in a moderate compass. The subject is plainly and simply treated, and the text is illustrated by many small, neat, and characteristic engravings, showing the flowers and fruit of almost every species.

It must be premised, however, that this is by no means a complete work on the "Trees of America." Not one of the nu-

* Companion to the Botanical Magazine.

merous *Oaks*, *Beeches*, *Chestnuts*, *Birches*, or *Pines*, that constitute the great feature of the American sylva, is described in it. This would seem an extraordinary omission in a volume which gives full length descriptions of such trees as the Mahogany, the Pistacia, the Orange, &c.; but in the preface, we find the following explanatory paragraph: "Should the public demand an extension of the work, conformably to the plan he has adopted, a supplementary volume will follow, embracing an account of most of the other trees growing in Europe and America," &c. So that this work is, as yet, only in part completed.

The only complete work on the trees—of all descriptions—that will flourish in temperate climates, is the celebrated ARBORETUM BRITTANICUM of LOUDON. It is, indeed, not saying too much to affirm that it is the most complete work extant upon any branch of horticulture and natural history. It was the great idea—the *magnum opus*—of its distinguished author, upon which he spent most of his fortune, and the greater part of the last ten years of his life. Numerous artists and engravers were employed for six years upon its illustrations—the latter being no less than two thousand five hundred in number—and many of the most distinguished men of rank and science in Europe and America assisted its author in the collection of the necessary information. The result is a perfect library of information on the subject of all the trees and shrubs that will grow in temperate climates. Eight octavo volumes, published in 1838, (two of which are portraits of remarkable trees,) comprise this great literary work—a work invaluable to the man of country tastes, and a monument to the name of LOUDON far more enduring than obelisks or columns of brass or stone.*

MR. BROWNE, in the preface of the work before us, informs us that he "personally extended his researches into South America, the West Indies, Europe, and Western Africa, where he availed himself of the advantage of not only verifying or correcting the observations which had been made by others on the trees of these countries, but examined them under various conditions in a state of nature, as well as in nurseries and collections of the curious." Our readers who may not possess Mr. LOUDON's work (published in 1838) would probably be glad to know how much the researches of Mr. BROWNE have added to our previous stock of original information. In order to gratify them, we give, one after the other, some extracts from both works on the same trees.

The following relates to the Red Flowering Maple, *Acer rubrum*, a tree about which Mr. BROWNE, as an American and an author, who has devoted himself specially to this subject, ought to be more thoroughly informed than any European.

From Loudon's Arboretum.

Properties and Uses. In America the wood of the Red-flowering Maple is applicable to several uses. It is harder than that of the White Maple, and of a finer and closer grain; hence it is easily wrought in the lathe, and acquires by polishing, a glossy and silken surface. It is solid, and, for many purposes, is preferred by workmen to other kinds of wood. It is principally employed for the seats of windsor chairs; the pieces are prepared in the country; and so considerable is the demand, that boats laden with them frequently arrive at New-York and Philadelphia, where an extensive manufactory is carried on for the consumption of the neighboring towns, and for exportation to the southern states and to the West India Islands. The whole frame of japanned chairs is made of this wood, except the back, for which hickory (Carya) is chosen, on account of its superior strength and elasticity. The frame, the nave, and the spokes of spinning wheels are made of the Red Maple. At Philadelphia, it is exclusively used for saddle-trees; and, in the country, it is preferred for yokes, sho-

* We regret that the necessarily high price of the work—about $50—prevents its very general dissemination. But, before his death, the author prepared a condensed edition, called the *Encyclopedia of Trees and Shrubs*, in one thick octavo volume, at about one-fourth that price, which contains almost every thing of the greatest value.

vels, and wooden dishes, which are brought to market by the country people, and purchased by the dealers in wooden-ware. It sometimes happens that in very old trees, the grain, instead of following a perpendicular direction, is undulated; and this variety bears the name of the curled maple. This singular arrangement is never found in young trees, nor in the branches of even such as exhibit it in the trunk; it is also less conspicuous in the centre than near the circumference. Trees having this character of wood are rare, and do not exist in the proportion of one to a hundred. The serpentine direction of the fibre, which renders them difficult to split and to work, produces, in the hands of a skilful mechanic, the most beautiful effects of light and shade. These effects are rendered more striking, if, after smoothing the surface of the wood with a double-ironed plane, it is rubbed with a little sulphuric acid, and afterwards anointed with linseed oil. On examining it attentively, the varying shades are found to be owing entirely to the inflection of the rays of light; which is more sensibly perceived on viewing it in different directions by candle-light. Before mahogany became generally fashionable in the United States, the best furniture in use was made of the Red-flowering Maple, and bedsteads are still made of it, which in richness and lustre exceed the finest mahogany. At Boston, some cabinet-makers saw it into thin plates for inlaying mahogany; but the most constant use of curled maple is in the stocks of fowling pieces and rifles, which, to elegance and lightness, unite toughness and strength, the result of the twisted direction of the fibres. The cellular matter of the inner bark is of a dusky red. By boiling it yields a purplish color, which on the addition of sulphate of iron, becomes dark blue, approaching to black. It is used in the country, with a certain portion of alum in solution, for dyeing black. The wood of the Red-flowering Maple does not burn well, and is so little esteemed for fuel, that it is rarely brought for that purpose into the cities. It has but little strength, is liable to injury from insects, and ferments and speedily decays when exposed to the alternations of dryness and moisture. For these reasons, though it is now extensively used in America, its importance in the arts is not sufficient to entitle it to preservation; and Michaux supposes that, when artificial plantations become necessary in the country, the Red Maple will be altogether omitted. The French Canadians make sugar from the sap of this maple, which they call *plaine;* but as in the preceding species, the product of a given measure is only half as great as that obtained from the Sugar Maple. (*Michaux.*) In Britain and throughout Europe, the sole use of the Red-flowering Maple is as an ornamental tree; and whether we regard the beauty of its flowers and opening leaves in early spring; of its red fruits in the beginning of summer, or its red foliage in autumn, it deserves to be considered one of the most ornamental of hardy trees.

From Browne's "Trees of America."

The wood of the Acer rubrum, when dry, weighs forty-four pounds to a cubic foot, and when green, it is soft, full of aqueous matter, and loses in drying nearly one-half of its weight. In this tree, as in others which grow in wet places, the sap-wood bears a large proportion to the heart-wood, the latter of which consists of an irregular column, star-like in its transverse section, and occupies the central parts of large trunks, with its points projecting into the sap-wood. This wood has but little strength, is liable to injury from insects, and ferments and speedily decays, when exposed to the alternations of moisture and dryness. Yet it is solid, and for many purposes, is preferred by workmen to other kinds of wood. It is harder than that of the White Maple, and of a finer and closer grain; hence it is easily wrought in the lathe, and acquires, by polishing, a glossy and silky surface. It is principally employed in the manufacture of chairs, saddle-trees, shoe-lasts, ox-yokes, broom-handles, and various other articles of domestic use. It sometimes happens, that in very old trees, the grain of the wood, instead of following a perpendicular direction, is undulated; and this variety bears the name of *curled maple.* This singular arrangement is never found in young trees, nor even in the branches of such as exhibit it in the trunk; it is also less conspicuous in the centre of the tree than near the bark. Trees offering this disposition, however, are rare. The serpentine direction of the fibres, which renders this wood difficult to split and to work, produces, in the hands of a skilful mechanic, the most beautiful effects of light and shade. These effects are rendered more striking, if, after smoothing the surface of the wood with a double-ironed plane, it is rubbed with a little sulphuric acid, and afterwards with linseed oil. On examining it attentively, the varying shades are found to be owing entirely to the inflection of the rays of light; which is more sensibly perceived in viewing it in different directions by candle light. Before mahogany became generally fashionable in the United States, the best furniture in use was made of the Red-flowered Maple, and bedsteads are still made of it, which, in richness of lustre, exceed those of the finest imported woods. But one of the most constant uses to which the curled maple is applied, is for the stocks of rifles and fowling pieces, which, to elegance and lightness, unite toughness and strength, the result of the tortuous direction of the fibres. The cellular matter of the inner bark is of a dusky red. By boiling, it yields a purplish colored liquor, which, with the addition of sulphate of iron, (copperas,) acquires an intense dark blue, or black, and is sometimes employed as ink by American youth in village schools. For this purpose, however, it is very inappropriate, as it never dries properly, and in damp weather, the writing becomes glutinous and blots. A fluid prepared in a similar manner, by adding sulphate of alumina (common alum,) instead of copperas, is also used for dyeing black. The French Canadians make sugar from the sap of this maple, which they call *plaine;* but, as in the preceding species, the product of a given measure is not more than one-half as great as that of the Sugar Maple.

In Britain and throughout Europe, the sole use of the Acer rubrum is as an ornamental tree; and whether it is viewed in the beauty of its flowers and

opening leaves in early spring; or admired for its red fruit in the beginning of summer, and its crimsoned foliage in autumn, it deserves to be ranked as one of the most ornamental of hardy trees. Page 100.

The following is the description of the common Dogwood, *Cornus florida*, of our woods, in the words of both authors.

From Loudon's Arboretum.

Cornus florida is universally allowed to be the handsomest species of the genus. In its native country, it forms a tree reaching, in the most favorable situations, thirty or thirty-five feet in height, with a trunk nine or ten inches in diameter; but in general it does not exceed the height of eighteen to twenty feet, with a trunk of four to five inches in diameter. Michaux describes the trunk as "strong and covered with a blackish bark, chopped into many small portions, which are often in the shape of squares more or less exact. The branches are proportionably less numerous than on other trees, and are regularly disposed, nearly in the form of crosses. The young twigs are observed to incline upwards in a semicircular direction. The leaves are opposite, about three inches in length, oval, of a dark green above, and whitish beneath; the upper surface is very distinctly sulcated. Towards the close of summer they are often marked with black spots; and at the approach of winter they change to a dull red. In New-York and New-Jersey, the flowers are fully expanded about the 10th or 15th of May, when the leaves are beginning to unfold themselves. The flowers are small, yellowish, and connected in bunches, which are surrounded with a very large involucre, composed of four white floral leaves, sometimes inclining to violet. This fine involucre constitutes all the beauty of the flowers, which are very numerous, and which, in their season, "robe the tree in white, like a full-blown apple tree, and render it one of the fairest ornaments of the American forests." Catesby, who first described this tree, says that the blossoms break forth in the beginning of March, being at first not so wide as a sixpence, but increasing gradually to the breadth of a man's hand; being not of their full bigness till about six weeks after they begin to open. The fruits which are of a vivid glossy red, and of an oval shape, are always united; they remain on the trees till the first frosts; when, notwithstanding their bitterness, they are devoured by the Red-breasted Thrush (*Turdus migratorius, L.*) which about this period arrives from the northern regions, and the Mocking Bird (*T. polyglottus*, L.) during the whole winter. Page 1018.

From Browne's "Trees of America."

Of all the species of the genus, the Cornus florida is allowed to be the most beautiful. In its natural habitat, when grown under favorable circumstances, it forms a tree attaining a height of thirty to thirty-five feet, with a trunk nine or ten inches in diameter; but in general it does not much exceed one-half of these dimensions. The trunk is covered with a blackish bark, chopped into many small portions, which are often in the shape of squares more or less exact. The branches, which are not so numerous as on most other trees, are regularly disposed, with their young twigs inclining upwards in a semicircular direction. The leaves are opposite, about three inches in length, ovate, acuminated, of a dark green above, and whitish beneath, with the upper surface very distinctly sulcated. Towards the close of summer, they are often marked with black spots; and at the approach of winter they change to dull red. The flowers, which appear in Florida in March, and in New-York in May, are small, yellowish, and connected in bunches, surrounded with a very large involucre, composed of four white floral leaves, sometimes inclining to violet. This fine involucre constitutes the chief beauty of the flowers, which are very numerous, and which, in their season, "robe the tree in white, like a full-blown apple tree, and render it one of the fairest ornaments of the American forests." The fruits, which are of a vivid glossy red, and of an oval shape, are always united, and remain upon the trees till the appearance of the first autumnal frosts, when notwithstanding their bitterness, they are devoured throughout the winter, in the southern states by the mocking bird (Turdus polyglottus,) and the American robbin or red-breasted thrush, (T. migratorius,) the latter of which, about this period, arrives from the regions of the north. Page 350.

These extracts are taken at random from the work. The character of nearly the whole volume is precisely similar to our quotations—that is to say, instead of using his own language to describe trees, their properties, characters, etc., Mr. Browne has paid Mr. Loudon the compliment of using his, though he has omitted, in many cases, half or two-thirds of the matter given in the *Arboretum*. Would it not have been better and juster, therefore, to have called the work "An Abridged Compendium of Loudon's Arboretum," than the "Trees of America?" But in order even to make that title a proper one, another volume, containing the Oaks and the numerous large forest trees before mentioned, would be needed.

Mr. Loudon's name is scarcely mentioned in the body of the work, though the author acknowledges in the preface that he is "particularly indebted" to him. Dr. Harris's

Treatise on Insects is pretty largely quoted, and to this excellent work full credit is given in the usual manner.

The *plan* of the volume before us, which is copied from LOUDON, is an excellent one. First, the character of the genus is given; then that of the species, with the various synonyms and derivations; this is followed by the popular description; the character of the varieties; the geography and history; the soil, situation and propagation; the insects and diseases; and finally the properties and uses.

In the preface, the author informs us that he "undertook the preparation of a work on the trees of this country, more complete and extensive than had hitherto been published." On looking through its pages, we find *two trees* described, which are not contained in Loudon's Arboretum, viz., *Bursera gummifera*, a native of the West Indies, and *Ilex paraguariensis*, a native of South America. Neither of them will grow in gardens in this country without protection. On the other hand, LOUDON'S work contains at least a hundred species of North American forest trees not described in this work.

We do not know that Mr. BROWNE makes any pretension to being a *practical* arboriculturist. If he did, we should find great fault with him in many cases; for example, he does not tell us, while praising londly the European Holly for hedges, and recommending its general use, the lamentable truth that it will not stand the winters of this climate under ordinary circumstances, north of Philadelphia. Under the section of "soil, situation and propagation" of the Pomegranate, the novice will find it stated that "the single wild pomegranate will grow in almost any soil." Not a word of its being a tender or half-hardy tree is mentioned in the remainder of the paragraph, where one would naturally expect it; but in another page, we learn that "it is also cultivated as a wall tree, or as a conservatory plant, in various parts of the middle and northern states, where it is highly prized."

We have no room for numerous other comments of a like nature, that are suggested. But we trust if Mr. BROWNE pursues his subject in another volume, on the remaining forest trees of this continent, he will make use of the rich materials which, we assure him, still remain to be collected in this country regarding our native trees. Notes on their adaptation to particular soils —the greater or less facility with which they may be transplanted—and the aspects where they will and will not grow—are all subjects which ought properly to be embraced in such a work as this. If an author, devoted to this subject, were to extend his researches sufficiently to take portraits and give accounts of such trees as the grand oaks on the Wadsworth estate in the Genesee valley, the truly unrivalled elms of the Connecticut river, and above all, the gigantic pines of California, he would be working a mine of native arboricultural wealth, which his countrymen would use and acknowledge the value of with profound gratitude.

We have no doubt that this volume, very neatly published by the enterprising house of the HARPERS, will find many purchasers, and will convey a great deal of information to those who cannot possess LOUDON'S "Trees and Shrubs." To those who can, we cannot too strongly recommend the latter work, as far more perfect, and indeed the best book of its kind in the world.

FOREIGN NOTICES.

THE GREAT HAIL STORM.—The effects of the great hail storm in the vicinity of London, on the first of August, appear to have been most disastrous to the interests of horticulture. The South London Floral and Horticultural Society have made a report that "the losses sustained by those engaged in horticultural trade in the neighborhood of Stockwell, Clapham and Brixton, amounted to no less a sum than £18,000" (about $90,000.) A public meeting was held at the London Tavern, on the 17th of August, for the relief of those who suffered most severely. The Duke of Cambridge presided. A public subscription was opened, and about $1,800 was subscribed on the spot, his Royal Highness subscribing 20 guineas, the Lord Mayor 10 guineas, Dr. Lindley 10 guineas, etc. J. Almett, Esq., stated that 3000 squares of glass had been broken in his conservatory. An efficient committee, with the Lord Mayor at its head, was appointed to carry out the objects of the meeting, by soliciting farther subscriptions.

On the 24th and 25th of August, a floricultural fête was held at the Surrey Zoological Gardens, in behalf of the sufferers. It was well attended, and many plants, bouquets and fruits were sent to be sold, and the proceeds added to the fund.

.....

PARIS HORTICULTURAL SHOW, *August*, 1846.—The Paris Societé Royale d'Horticulture held its grand show on the 7th, 8th and 9th of August. The time selected is complained of as being always an unsuitable one, and the present season particularly so—"the excessive heat and drouth, which for the last two or three months have been almost unprecedented, even in Paris, scarcely a drop of rain having fallen for the last ten weeks, Roses, Dahlias, and other flowers, have been at times literally scorched to powder; and the ravages of the Thrip and Red Spider almost universal." Under these circumstances, the exhibition is spoken of as having been a creditable one—the number of exhibitors not so numerous as previously, but the plants of a better description.

The prizes offered were two gold medals by the Duchesse d'Orleans and the Princesse Adelaide, and sixteen silver medals, and the like number in bronze by the Society.

The finest and best cultivated plant shown was *Dichorizandra ovata*, by M. Ryfkogel, for which a silver medal was given. M. Crochet obtained a prize for two magnificent Canteloupe melons, weighing from twelve to eighteen pounds each. The gold medal of the Duchesse d'Orleans was awarded to M. Jaquin Ainé, for a miscellaneous collection of plants. "M. Jamin sent the plums Reine Claude (Green Gage) and Reine Victoria, really fit to set before a queen. Neither grapes nor peaches," observes the correspondent of the Chronicle, "were worthy of France."

.....

INDIAN CORN BREAD-STUFFS IN ENGLAND.—The English journals abound with recipes for the manufacture of the "staff of life," in various forms, from our Indian corn. Elihu Burritt, better known in this country as the "learned blacksmith," of New-England, appears to be devoting himself to teaching the inhabitants of Great Britain how to feed *the million* with this cheap and wholesome food. We have seen extracts from a pamphlet of his published there, which gives a great number of popular American recipes for such bread as "Johnny cake," "Indian Pound cake," "Corn Meal cake," "Corn Dodgers," "Hoe cake," "Corn muffins," "Hasty Pudding bread," "Hominy," &c., &c. If these get fairly naturalized among the middle classes of Great Britain and Ireland, as there is at present every reason to believe they will, we cannot doubt that Indian Corn will, at no distant day, become to America the most profitable of exportable products. The climate of Great Britain will not produce it, and the soil and climate of the United States, throughout the whole length and breadth of the country, are so highly favorable to it, that its production may be increased to an almost unlimited extent.

.....

THE POTATO DISEASE.—The potato disease, as we learn by the last files of our agricultural papers by the steamer, down to the 29th of August, is dreadfully prevalent in all parts of Great Britain and Ireland. Many districts that altogether escaped last season, are suffering badly this year; and in various parts of the country, the crop is already entirely destroyed—or so far gone that the putrid smell arising from the fields is very offensive. Those who planted in peat soil, or used soot in the drills, in the hope of preventing the disease, have suffered alike with those who have planted in the common way. It is now thought that the cultivation of the potato, on a large scale, will have to be abandoned, for the present at least, in Great Britain, and attention must be turned to field peas, Swedish turnips or something of the kind in its stead.

.....

A GARDEN ON THE HOUSE TOP.—In Sweden it is not an uncommon sight in the country, and sometimes even in the villages, to see the roofs of the poorer cottages covered with herbs which serve as pasture for the goats. In Norway they even plant trees in the turf which covers the roofs, and to such an extent is this carried, that some of their hamlets or villages, seen at a distance, have quite the air of a little wood. Nothing is more common than to see rude kitchen gardens on these roofs of the houses.—*Revue Horticole.*

.....

LONDON ZOOLOGICAL GARDENS.—Of the London Zoological Gardens I had formed too exalted an idea; perhaps, too, the sight of noble animals in confinement is naturally painful. As a garden, the place is well enough; and much is done to render the prisoners comfortable. The bears get plenty of cake for climbing up a long pole; the monkeys chatter and frolic as much as one could wish; while the elephants bathe in a miniature lake, and look sulky; and the cameleopards enjoy

their high-roofed stable. But notwithstanding the efforts of the projectors to imitate the natural haunts of the animated race, the garden is to me a dull place.

One hint obtained here may be useful in America; the *donkey* is employed to drag the rollers over the gravel walks—he is too light to make more impression on the gravel than the roller will obliterate. This useful little animal is employed in Europe in various ways to great advantage; his introduction into the general field of labor is one of the things we have yet to learn. His appetite is easily satisfied, requiring less than a large dog; his labor, even as a burden carrier, would well repay his importation; he pulls well in a small cart, and in this is most useful in cities to carry marketing. He would take the whole produce of a small kitchen garden as well as a horse, while his cost and maintenance would be a very trifle. To the poor man, he would prove in America, an admirable help, not dainty as to the quality or quantity of his food.—*Smith's Jaunt across the Water.*

.....

Pere le Chaise Cemetery.—The cemetery of Père le Chaise greatly disappoints me. It is large, and has a very fine view of Paris from its heights; but nearly the whole place is dirty or neglected. The monuments are mostly of yellow stone, very much out of taste, extremely numerous, often badly constructed and tumbling about, while weeds disfigure many—many others. The mass of the monuments may be said to be little chapels, with a grated door, an altar inside, candlesticks, and a chair or two; while the wreathes of *immortelles*, artificial flowers, vases, flower-pots, old china, or gew-gaws, are pictures of distorted grief. In one or two instances, a bust was dressed up in immortelles, *with ear-rings;* the flowers and face too made by time as black as a negro's. When there is no chapel, a painted half circle of tin runs across from one iron railing to the other, to protect the wreaths from wet; and here and there are sometimes dozens of these wreaths strung up, some being made of whalebone frizzled, in the manner of the British lawyers' wigs, and the rest of flowers. Very queer vases, with flowers, are sometimes seen. Occasionally a good rosebush or honeysuckle overruns a little plot, shaded perhaps, on each side by chapels. Some of the monuments are lofty and costly; among the latter are those of Casimir Perrier, and some of Bonaparte's marshals. Ney has no name on his grave, that privilege having been denied to the family of a proscribed man; but some one has scraped the little word in the paint of the railing, with a pin; it has more celebrity, and is more visited than the most costly inscriptions. A road winds about the cemetery, paved with square stones. It is much used, and is very dusty. Interments of persons of all sizes, ages, and degrees, from the little infant of poor parents, carried on a shabby bier to the place for those who cannot or will not pay for the ground in perpetuity, to the soldier whose grave they were firing over, or the nobleman attended by a host of followers, may be seen going on at the same moment. The funerals are extremely numerous every day, but no statistics were to be obtained. Altogether the aspect of the place was that of a city of the dead, not that of a rural cemetery. I have seen no rural cemetery in Europe that will compare with the best at home for beauty of scenery, careful keeping, or planting. The two best in England are very inferior in these important respects; I mean the St. James's at Liverpool, and Kensall Green, near London.—*Smith's Jaunt across the Water.*

.....

Achimenes pedunculata.—Beautiful as this family of plants is, none of them seems to outvie this variety. In habit it is robust and stately, giving it an especial claim to attention. I manage it as follows:—After flowering, and when the foliage has begun to decay, water is withheld, and the plants are kept in a dry situation, out of the reach of frost. About the middle of January, the old soil is shaken from them, and they are planted in pans well drained, in a mixture of charcoal broken to the size of a nut, turfy peat, and burnt turf well mixed with silver sand. The pans are filled to within about an inch of the top, the tubers are laid regularly on, and the pans filled up. They are then placed in a warm situation in a vinery near the glass, where in a short time the plants make their appearance: they are then transplanted singly into small pots, and as soon as the roots appear on the outside of the ball, they are repotted three into a well drained 6-inch pot. As soon as the second pair of leaves unfold, the top is pinched off, and this operation is continued till the plants form quite a bush; the syringe is drawn over them every fine evening. About the middle of May, they are removed to the green-house, when they soon show flower. By following this system no sticks are required. This is the best of all the species for the drawing-room; several plants that have been in the room for the last three weeks, have not lost a leaf; and they are studded with a profusion of lovely orange flowers.—*E. S. in Gardener's Chronicle.*

.....

Healthy Potatoes produced from diseased sets.—On taking up the crop last autumn, a considerable quantity of the worst tubers, (which, though so much affected as to be easily perforated with the finger, were yet sprouting at one end,) were planted immediately. Others, to all appearance even worse than these, were thrown together in a heap to rot. During the winter they sprouted, and in January many of these were also planted. Strange to say, the produce from these roots is the best crop in the field—indeed, an excellent crop, and of good quality; and it is required now to dig as large a portion of ground in any other part of the field to find a basket of good potatoes, as in the part where these diseased tubers were planted to find a basket of bad ones. Lime rubbish from old walls was laid in the bottom of the trench, on which was placed some old thatch, and the potatoes planted thereon, and covered with earth so that they lay as dry as possible.—*Constant Reader, in Gard. Chron.*

.....

Potato Disease in North of Ireland.—Between the 12th and 20th of August, I traversed the

province of Ulster, passing from Dublin to Belfast and Coleraine; and thence southwards, by Armagh, Monaghan, Fermanagh, and Cavan, through Meath to Dublin again, the only county which I did not see being Donegal. During my whole course, I saw but one field of potatoes which was not evidently and hopelessly affected by the disease; that field was close to the city of Armagh. The dry and the wet lands seemed alike blighted, the levels and the slopes. The crops growing on soil along the volcanic rocks, on the chalky and the mountain limestones, on the gravel, the sand, and the bog lands, appeared all equally destroyed, so far as a passing eye could judge. The fields cultivated in the usual Irish ridge bed mode, and also those in the better drilled rows, were alike. All had the appearance of having been struck with frost, the blackness of the leaves travelling in general upward from the roots. Some fields were so bad, that the peculiar scent of the disease was perceptible even from the adjoining road. Fields which had, as I was informed, looked well a week before, were now gone, and I was told, that, in some instances, a single day had sufficed to throw the blight over the whole surface of a field. The roots which I saw were every where small and watery, even where they were not unequivocally diseased; and this not only in the late kinds, which of course are quite unripe, but even in the earlier varieties, which, at this season, ought to be mealy and wholesome. The rich and the poor held but one language, that of deep dejection, and the universal impression seemed to be, "the potatoes are leaving Ireland forever." Yet the poor, both Protestants and Romanists, seemed to feel contented, for they said, "the Almighty will never leave us to starve; some other food will be sent us." I could not help noticing that the turnip crops were most promising where the potatoes seemed most destroyed.—*A. W. B. in Gard. Chron.*

.....

Wasp Traps.—Take two hand-glasses of a similar shape and size, place one of them on four bricks, then with the point of a knife, carefully take out one of the panes a little below the top; turn the other glass upside down, and sprinkle the inside with a mixture of honey and vinegar which will create a scent; place it immediately over the one resting on the bricks. If the two glasses should not fit exactly, as they seldom do, on all four of the sides, get some wet moss and squeeze it into the apertures with a pointed stick. The trap will now be complete. In consequence of the glasses being elevated on bricks (inverted flower-pots will answer as well,) the wasps will obtain a ready admission underneath, and directly mount up through the opening made in the under glass into the apartment above; and, as a wasp never flies downward, they will never get out where they got in, consequently they will all be made prisoners, if the upper glass be free from holes. In the course of a day or so they will all be dead; but in order to destroy them as quickly as possible take some brown paper previously dipped in melted brimstone, apply a match to it, and place it under the glasses; the fume will soon ascend through the opening mentioned before into the upper chamber, and kill them all in a minute. Should the wasps be numerous, and one trap only be found insufficient, several should be employed; I have sometimes had ten in different parts of the garden. Every other day the upper glass should be taken off and sprinkled as before, or oftener than this, if brimstone be used. I have, in some seasons, ensnared myriads of those vexatious enemies by the plan just described. I do not mean to say that it will do away with the necessity of destroying the nests; I would advise this to be done by the following easy method. Wherever they are found, pour into the hole a little gas tar, place a bit of turf on it, and tread it down hard, and all that are at home will die.—*Joseph Melony, Brightwell, Aug. 24. Gardener's Chronicle.*

.....

Cure for the Caterpillar.—A gentleman at Galashiels has discovered that exhausted bark spread on the surface round the roots of gooseberry bushes, is an effectual remedy for caterpillar. His garden used to be much infested by these destructive insects, which he had tried various modes of rooting out without success, until a lucky chance led him to try the effect of refuse bark from the tan-yard. Two years ago he spread a considerable quantity of it round the roots of all the bushes in his garden, except one or two. Those missed were seriously injured by the caterpillar; all the others were perfectly saved. The next year he neglected to renew the bark, and every bush in the garden was affected with the disease. This year he again resorted to it, and not a single caterpillar is to be seen. A more simple and cheap remedy could scarcely be wished for. A cartload of the bark, which costs about sixpence, is amply sufficient for the largest garden.—*Gardener's Chronicle.*

DOMESTIC NOTICES.

The Great Horticultural Shows.—September, teeming, fruitful September, has as usual witnessed the rich and beautiful offerings of the votaries of Flora and Pomona, in all parts of the country. The three most attractive displays have been those of Boston, Philadelphia and Auburn. At the two first named places the Massachusetts and Pennsylvania Horticultural Societies have held their great annual shows; at Auburn, the New-York State Agricultural Society opened its great fair for this year.

The season is not considered a very favorable one either in New-York or the Eastern States, for a show of fruits generally. The weather has been such that a premature ripening of many fine varieties had taken place before the season of exhibi

tion, so that the *variety* shown was somewhat diminished.

It has been a matter of much regret to a great number of persons interested in these three leading shows, that, by some want of proper management, their exhibitions all came off on the same days, the 16th, 17th and 18th of the month. This deprived many persons of the satisfaction of attending more than one of the shows, who were very desirous, both for purposes of pleasure and instruction, of attending all of them.

.....

THE EIGHTEENTH ANNUAL EXHIBITION OF THE MASSACHUSETTS HORT. SOCIETY.—The eighteenth annual exhibition of the Massachusetts Horticultural Society was opened to the public in the Society's large hall, at 12 o'clock the 16th of September, and continued the two following days and evenings. The hall was thronged with visitors during the whole time. Most of the Horticultural Societies of New-England, and some from New-York, were represented either by delegates or members; and many distinguished strangers, as well as citizens, were present to admire the rich profusion of fruits, flowers, and decorations.

Those who have been familiar with the past exhibitions of the Society, were satisfied that some improvement was manifest in the present one over those which have preceded it. The fruits, flowers and decorations were well harmonized, and produced a happy effect. The floral designs and decorations were in better taste than those exhibited last year, and to a portion of the visitors appeared to be the greatest attraction; but to the horticulturist, the fruits were the most prominent part of the exhibition. The cut flowers were deficient in quantity, variety and quality. The Dahlia and German Aster, so beautiful and perfect at this time of the year in most seasons, and which have contributed so much to the brilliancy of past exhibitions, were comparatively few and imperfect; there were some exceptions to the Dahlias, particularly on the last days of the exhibition, when some fine specimens were brought in. The first part of the month of September, as all know, was excessively warm, which, with absence of rain, and a high wind previous to the exhibition, nearly destroyed this flower for the occasion.

The fruits were arranged on two long central tables, and one side table, forty or fifty feet long. They were ornamented with four marble statues representing the seasons, the Society's superb new marble, and the rich Chinese Bradley vases, in which were large pyramidal bouquets. On the tables were also numerous hand and table bouquets. On one table was a superb tripod hung with clusters of luscious grapes of different colors and varieties, from Mr. Cushing's garden, arranged by Mr. Haggerston. Another table bore a pyramidal design, covered with evergreen, and hung with a superb collection of grapes from Mr. Horace Grey, arranged by Mr. Russell. Mr. Arnold of New-Bedford, and O. H. Mather of Brighton, by Mr. Needham, exhibited rich clusters of grapes in fanciful designs. Numerous dishes of grapes, grown in the most perfect manner, were to be seen from the conservatory of T. H. Perkins, Esq., exhibited by Mr. Quant. A superior specimen of Wilmot's Black Hamburgh, remarkably large and fine, was exhibited by Messrs. Hovey & Co. Grapes were also exhibited by others very finely grown; and in fact we have never seen a finer show of grapes. There were some baskets of assorted fruit, beautifully ornamented, containing peaches, nectarines, pears, grapes, plums, etc. The show of peaches was excellent, there being many very beautiful specimens on the tables. Though rather late in the season for plums, they were presented in sufficient quantity to make up a fair assortment.

Pears were never exhibited in greater variety, but we believe it was generally admitted that finer specimens of some of the more prominent sorts were exhibited the last season. M. P. Wilder, President of the Society, exhibited *one hundred and fifty-four* varieties, and Mr. Manning of the Pomological Garden, Salem, *one hundred and seventy-five*. There were also large contributions from many other gentlemen, as will be perceived by the official report, which will be published in the November number of the Horticulturist.

B. V. French, of Braintree, exhibited the greatest variety of apples, including many that were very beautiful. Large contributions of this fruit were also received from many other individuals.

The principal designs were a Floral Grecian temple, by Mr. Quant; a Swiss Cottage, by Mr. Warren; a Gothic Monument by Mr. West; a Chinese Pagoda, by Walker & Co.; a Gothic Arbor, by Mr. Galvin: these were placed at each end of the several tables. The walls were also decorated with a variety of large flat bouquets and designs, and numerous moss vases, and other articles. There were also a dozen fine specimens of dwarf Cockscombs, finely grown by Mr. Quant, distributed about the walls, and some few pot plants, as many as could be placed to advantage in the hall.

Taking all things into consideration, this exhibition was one of the best ever got up by the Society; and we believe there was a general satisfaction among the members as to its appearance. We can truly say that there is a growing taste in the country for horticultural pursuits, and that an increasing interest is manifested at each exhibition of the Society. *J. B.*

.....

REPORT OF THE COMMITTEE OF THE MASS. HORT. SOCIETY ON DESIGNS.—The Committee to whom was assigned the duty of awarding the Society's premiums for designs and floral decorations, at the annual exhibition, Sept. 16, 17, and 18, having attended to that duty, respectfully submit the following report:

The first premium of $40 to Wm. Quant, gardener to T. H. Perkins, for his beautiful Grecian Floral Tempie.

To Walker & Co., the second premium of $30, for their much admired Chinese Pagoda.

To J. L. L. F. Warren, the third premium of $20, for his neat Swiss Cottage.

To W. Sheehan, gardener to R. West, of Salem, the fourth premium of $10, for his fine Gothic Monument.

To John Galvin, gardener to Thomas Motley, Jr., the fifth premium of $5, for his Gothic Bower.

To Daniel Crowly, gardener to J. L. Gardener, the first premium of $10, for the best pair of large flat bouquets for the walls.

To James Nugent, the second premium of $5 for the second best flat bouquets.

To Hovey & Co., for the best round pyramidal bouquet for the Society's vases, the first premium of $8.

To S. A. Walker, for the second best pyramidal bouquet, $5.

To Hovey & Co. for the best pair of Mantel or Table bouquets, the first premium of $5.

To W. E. Carter, for the second best table bouquets, a premium of $3.

To Hovey & Co., for the best pair of hand bouquets, the first premium of $3.

No claimant for the second premium.

Miss R. Bowker, for the best design of native grasses or mosses, the first premium of $10.

Mrs. E. A. Story, for a like design, the second premium of $5.

Gratuities.—To Miss R. Bowker, a gratuity of $5, for a very tasteful wreath of grasses for the clock.

To S. A Walker, $10 for a beautiful flat design.

To S. A. Walker, $8 for 100 feet of beautiful wreathing.

To Mr. McNeil, gardener to J. W. D. Williams, $5 for a flat design.

To Miss Barnes, Dorchester, $2 for a basket and bower of flowers and evergreens.

To Orr N. Towne, $2 for a flat design.

To Wm. Kenrick, $5 for an ancient lyre.

To Edward Allen, $3 for a large flat design.

To Miss Russell, $8 for a large bouquet and moss vase.

To Samuel Walker, $3 for a large flat bouquet.

To Thomas Needham, gardener to O. H. Mather, $6 for a beautiful vase and bouquet.

To Mrs. E. A. Story, $3 for a beautiful circular design

To Hovey & Co., $2 for a pair of flat bouquets.

To Charles Mayert, $4 for designs for landscape gardening.

To J. L. L. F. Warren, $5 for a unique pyramidal bouquet, composed of vegetables.

To W. Quant, $2 for a pyramidal bouquet.

To the Messrs. Winship, $2 for a pyramidal bouquet.

To. Wm. Quant, $5 for twelve plants of fine dwarf Cockscombs, and other pot plants.

JOSEPH BRECK,
DAVID HAGGERSTON,
C. M. HOVEY,
H. W. DUTTON,
ALEX. MCLENNAN, } *Committee.*

.....

REPORT OF THE COMMITTEE OF THE MASS. HORT. SOCIETY ON FRUITS.—The Committee to whom was assigned the duty to award the premiums on fruits at the annual exhibition of the Mass. Hort. Society, have attended to that duty, and respectfully report that they have unanimously awarded the premiums to the following persons:

Apples.—For the greatest number of kinds, and the best grown, a premium of $10 to B. V. French.

For the second best, a premium of $5 to Messrs. Hyde.

For the third best, a premium of $3 to Capt. Macondray.

Pears.—For the greatest number of kinds and the best grown, a premium of $10 to Col. M. P. Wilder.

For the second best, a premium of $5 to S. Walker.

For the third best, a premium of $3, to J. S. Cabot.

Grapes.—For the best exhibited, the first premium of $10 to D. Haggerston.

For the next best, a premium of $7 to Thomas Needham.

For the third best, a premium of $5 to Hovey & Co.

For the greatest number of varieties, and the best grown, a premium of $10 to J. F. Allen.

For the next best, a premium of $5 to Wm. Quant.

For the best basket of assorted fruit, a premium of $10 to O. Johnson.

For the best dish of Apples, (Gravenstein,) a premium of $5 to Messrs. Hyde.

For the next best, (Porter,) a premium of $3 to O. Johnson.

For the best dish of Pears, (Bartlett,) a premium of $5 to Mr. J. F. Allen.

For the second best, a premium of $3 to S. Walker.

Gratuities.—To James Arnold of New-Bedford, $5 for fine specimens of Grapes.

To W. H. Denning, of Presque Isle, N. Y., $5 for superior specimens of Beauty of Kent apples.

To Horace Grey, of Brighton, $5 for fine Grapes.

S. WALKER,
DAVID HAGGERSTON,
F. W. MACONDRAY,
JOSIAH LOVETT,
OTIS JOHNSON, } *Committee.*

REPORT OF THE COMMITTEE OF THE MASS. HORT. SOCIETY ON VEGETABLES.—The Committee appointed to award premiums on Vegetables, report as follows:

For the best display and greatest variety at the Annual Exhibition, a premium of $10 to Aaron D. Williams & Son, of Roxbury.

For the second best, a premium of $7 to F. W. Macondray of Dorchester.

The Committee recommend a gratuity of $3, for a wreath of Corn of 12 varieties, to J. L. L. F. Warren.

Also a gratuity of $2 to E. Wight of Dedham, for a variety of Squashes.

JOSEPH BRECK,
A. D. WILLIAMS, JR,
WM. B. KINGSBURY, } *Committee.*

....

THE ANNUAL SHOW OF THE PENNSYLVANIA SOCIETY.—The exhibition is considered in all respects one of the finest which the Society has ever made. Both of the large saloons of the Philadelphia Museum Building were entirely occupied with the articles contributed.

The great feature of the Philadelphia shows lies in the *Floral* department, as contrasted with the Boston Show, which is pre-eminently distinguished for its *Fruits*. On entering the lower saloon, the splendor of the *floral devices* immediately arrested the attention. We do not refer to the *bouquets* of every variety of form, such as are commonly seen at exhibitions, but *rustic, architectural and grotesque devices*, of very large size, and striking appearance, most elaborately executed in flowers. Towering above all the rest in size, was one of these in the form of a *Chinese Pagoda* by Samuel Maupay, which reached nearly to the ceiling of the saloon. The design, which was pronounced in the best taste, and most perfectly executed, and which therefore received the Society's first premium of $40, was a *Gothic Temple*, made by A. Henderson. Besides these, there were rural grottos, rustic arbors, triumphal arches, pyramids, urns, cornucopias, etc., all formed in the most elaborate manner, of flowers, leaves, and moss, woven together as ingeniously as if by Flora herself.

Plants in pots were most profusely supplied, and formed a rich back ground to the exhibition tables. Among the most liberal contributors of these, were Messrs. Caleb Cope, James Dundas, and Gen. Patterson, among the amateurs; and Messrs. Buist, Ritchie and Dick, Dreer, Landreth and Fulton, and several others, among the professional gardeners. The *Roses* of Mr. Buist, comprising a collection of Perpetuals, Bourbons, Bengals, Tea, etc., of great beauty, and the superb *Dahlias* of Mr. Jared Schmitz, excited universal admiration. A tasteful *Urn*, formed entirely of indigenous flowers by Mr. Caie, was also much admired.

Among the fruits, the specimens of foreign grapes were especially remarkable. The finest bunches, raised under glass, to which the premium was awarded, were those grown by Wm. Westcott, gardener to Mr. Copperthwait; among those raised without heat, the best were grown by John Dougherty at Laurel Hill, and in the open air, Black Hamburgh by S. Middleton, Darby. Very superb specimens were also exhibited by Messrs. J. Copperthwaite, G. W. Carpenter, Alexander Parker, J. Snyder, Jr., William Johns, Caleb Cope, James Dundas, G. W. Smith, John Naglee, J. B. Baxter,

Lewis Craft, R. Carr, John Sherwood, and several others.

The "observed of all observers," was an immense cluster of Cyprian Grapes, sent by G. Copperthwaite. It was pronounced by the committee the largest bunch ever exhibited before the Society, and a special premium of $10 was awarded for it. Some clusters of "La Reine de Nice" grapes contributed by F. N. Bodine, were also unusually fine.

There were about forty contributors of pears. The largest variety was shown by J. Rutter of Chester county, who contributed thirty named sorts. Mr. Hays of Newark showed quite a large number of well grown varieties.

Geo. P. Deacon, of Burlington, N. J., showed thirty-eight varieties of apples, well grown. The contributors of fine Peaches were so exceedingly numerous that we must refer the reader for names to the official report of the exhibition, which we shall publish.

The arrangement of the large table in the upper saloon was handsome and effective. It was surrounded with fanciful wreaths or festoons of vines, woven into tasteful forms. At either end of the table was a magnificent cornucopia—well executed floral designs by Peter Rabbe: one overflowing with a profusion of the fruits of the season, the other abounding with every species of vegetable. The remainder of the table was crowded with the treasures of Pomona.

The space allotted to vegetables was most abundantly filled. Every culinary vegetable of the season was exhibited, many of them grown to very great perfection. The largest contributor in this department was Anthony Felten, whose collection, in quantity, excellence and variety, made almost an exhibition of itself.

.....

New-York State Agricultural Society.—*Horticultural Department.*—The building, erected for the occasion, for the exhibition of horticultural productions, was 150 feet long by 50 feet wide, and was built in the Grecian style of architecture. Its entire front, with its portico, was densely clothed with evergreens. The light was admitted to the interior through a line of broad openings on each side above, covered with light muslin. This hall was far superior, in size and decoration, to any erected at previous fairs. The interior was magnificent. A smooth boarded floor, twenty-five feet wide, extended the whole length through the middle, and supported the double line of terraced shelves for the exhibition of flowers and fruit, leaving a smooth and spacious walk on either side within the railing. At the centre, this line of shelves was interrupted by a fine evergreen gothic temple, 22 feet high, standing on a base 10 feet square. The softened light from above, upon the massive wreaths and green columns throughout the hall, added much to its imposing appearance. This hall was designed by Dr. Alex. Thompson of Aurora, N. Y.

The exhibition of flowers was fine for the season, though there were but few of much rarity. A fine collection of Dahlias and Verbenas was exhibited by James Wilson of Albany; Ellwanger & Barry of Rochester, presented 25 select varieties of Dahlias, and 12 species and varieties of Verbenas; they also exhibited 28 varieties of roses, principally Bourbons, Noisettes, Bengals, and Hybrid Perpetuals: the Princess Clementine, Bourbon—Souvenir de la Malmaison, Tea—and Augustine Moucheler, hybrid perpetual—were among the number. There were a large number of flowers, of different degrees of beauty and variety, in bouquets and masses, from various contributors, among whom were Professor Jackson of Schenectady, E. T. Throop Martin of Owasco, L. Menard of Albany, Edward Thomas of Geneva, Elisha Taylor of Buffalo, Henry Morgan of Aurora, and others.

A large number of cultivators exhibited considerable collections of fine fruits, though some of the best fruit gardens in the state were not represented. Ellwanger & Barry of Rochester, presented 12 varieties of peaches, 40 of apples, and 60 of pears; B. Hodge of Buffalo, an extensive miscellaneous collection of fruits; large collections were also on the tables from Bissel & Hooker, Rochester; Charles Powis, Greece, Monroe county; E. C. Frost, Catherine, Chemung county; A. Bryant & Son, Buffalo; Wm. Webb of ——; and —— Allen of Oswego. A. V. Pulsifer of Auburn presented a single branch of the Isabella Grape of last season's growth, 21 feet long, sustaining 81 pounds of grapes, some of the bunches being about eight inches in length. This good crop was owing to a thorough and judicious system of pruning. Very fine specimens of Crawford's Early Peach, a little out of season, were presented by T. G. Yeomans of Walworth, Wayne county. H. H. Coit of Northern Ohio, presented a fine and select collection, containing several specimens of uncommon beauty and size, among which were those of the Alexander apple, about five inches in diameter. There were a large number of smaller collections, some of them with very fine specimens, from various other sources.

Some of the principal varieties noticed, were the following, which were found in a greater or less number of the different collections:—*Apples*, Rhode Island Greening, Ribston Pippin, Black Gilliflower, Roxbury Russet, English Russet, Newtown Pippin, Lady Apple, Gravenstein, Late Strawberry, Baldwin, Esopus Spitzenbergh, Yellow Bellflower, Fameuse, St. Lawrence, Seek-no-further, Fall Pippin, Red Canada, Vandevere, Jonathan, Summer Pearmain, Tallman Sweeting, Hubbardston Nonsuch, Swaar, &c. This list will indicate most of the best standard varieties, which are now considerably cultivated in Western New-York, and it could have been much lengthened by the addition of those of second or third rate value, or of local character. Among the *Pears*, were Stevens' Genesee, Bartlett, Brown Beurre, Seckel, Wurtemberg, Capiamont, Winter Nelis, Easter Beurre, Gansel's Bergamot, Beurre Diel, Napoleon, Passe Colmar, St. Ghislain, Virgalieu, Louise Bonne of Jersey, &c. The season for *Peaches* had nearly passed; the following were found, more or less, in the several collections: Old Mixon Cling, Old Mixon Free, President, Lemon Cling, Red Cheek, Malacoton, Jacques' Rareripe, Crawford's Early, and Blood Cling. Many of the collections had Isa-

bella, Catawba, Burgundy, Sweetwater, and others of the most commonly cultivated grapes interspersed through them.

It was much to be regretted that this magnificent and costly building was not better filled; and that only *twenty-four dollars* in cash, and three silver medals, besides books and diplomas, constituted the whole of the premiums offered on horticulture, among an aggregate number amounting to three thousand dollars, while there are many farmers in Western New-York, who make more money by selling fruit, than from all other crops together. *J. J. T., Macedon, Wayne Co.*

.....

BUFFALO HORTICULTURAL SOCIETY.—At a meeting of the Buffalo Horticultural Society, held on Wednesday, August 26, 1846, it was unanimously

Resolved, That this Society welcome with great satisfaction the appearance of "The Horticulturist," edited by A. J. Downing, under whose capable and efficient management, it most confidently anticipates a most useful and honorable career, in reforming, as well as improving, the rural taste of our land. With entire confidence in the ability of the work, we commend it to the attention and patronage of the public.

Resolved, That this Society adopt the authority of Mr. Downing in his "Fruit and Fruit Trees of America," as their standard in the classification and nomenclature of their fruits.

Resolved, That the reports of the several exhibitions of this Society be transmitted to the Editor of the Horticulturist for publication.

LEWIS F. ALLEN, *Prest.*

C. F. THOMAS, *Sec.*

Report of the August Exhibition.—The Committee to whom was appointed the duty of examining the fruits and vegetables of the August exhibition, beg leave respectfully to make the following report:

It is with unfeigned pleasure that your committee have examined the numerous specimens of rich and peculiarly fine fruits. Pomona indeed lavished, on this occasion, a fair share of her treasure among us. Our principal table for fruit, twenty-four feet long, by five feet wide, was greatly crowded with the profuseness of the various exhibitors. Cheek by jowl, each vieing with the other, were the splendid Morrison's Round Peach with the Washington Plum, the Moorpark Apricot, and the Golden Chasselas Grape, the Pound Sweeting Apple, and the Beurre Spence(?) Pear—all specimens of unusual size and beauty.

We cannot refrain, at this time, from congratulating our fellow-citizens upon the rapid improvement in our horticultural products, and the progress of taste and skill evinced in their cultivation.

Our thanks are particularly due to our professional friends and gardeners, the Messrs. BRYANT, Col. HODGE, Mr. W. WELSH, and Mr. ELIN TYLER, for their spirited efforts, in the importation of new and valuable varieties of fruits and plants. Many varieties of fruit are in bearing for the first time here; and the speedy accumulation of the choicest kinds, with an extended effort at grape cultivation, will, under the fostering care of our Society, soon make the neighhorhood of Buffalo noted for its horticultural productions.

Plums.—The variety of plums exhibited was large, and the specimens in fine order.

Washington—of this plum there were some specimens exhibited by Mrs. Shumway and Mrs. Haywood, of uncommon size and beauty; among other kinds, we notice Red Magnum Bonum—sixteen specimens, very large and fine, and giving indisputable evidence of good culture; Yellow Gage, Prince's Yellow Gage, Green Gage, Bleeker's Gage, Purple Gage, Imperial Gage, French Prune, —all the foregoing were very choice specimens; Smith's Orleans—very large and fine, showing fine culture, one weighed near three ounces; Goliah, Mammoth Blue—very fine; Blue Damson, Huling's Superb.

Peaches.—New Seedling, York or Russet, Morrison's Pound, Yellow Rareripe, Alberge, Red Rareripe—all fine, and some of very large size.

Apricots.—Moorpark from Mr. Webb and Col. Hodges, both very fine.

Figs.—Brown Ischia Figs from Mr. Webb, ripe and admirably grown.

Grapes—Golden Chasselas, Black Hamburgh, White Sweetwater, Miller's Burgundy—ripe, rich and luscious, well grown.

Pears.—Many excellent specimens of Stevens' Genesee, Beurre Spence, Brown Beurre, Summer Belle, White Roi d'Eté, Seckel, Orange Bergamot, Vert Souque, Epine Rose, Louise, Bonne de Jersey, Newtown Virgouleuse, Autumn Superb, Julienne, Napoleon, Autumn, Patroon. Washington, Marie Louise, and Pound Pear.

Apples.—Sweet Bough, Hawthornden, Red and Green Sweeting, Pound Sweeting, Summer Codlin, August Tart, Orange Sweet, Peach Apple, American Nonpareil, Corpendue, Golden Rennet, Emperor Alexander, Drap d'Or, Indian Rareripe, Oslin, Summer Rose, Large Yellow Bough, Early Joe, Red Astrachan, Sine Qua Non, Tart Bough, White Juneating, Strawberry Pippin, Nonsuch Pippin, Summer Queen, three new seedlings, Detroit Red, Williams' Favorite, Sugar Sweeting, Golden Sweet, Yellow Harvest, Summer Sweeting, Pomme de St. Jean, Red Juneating, French Codlin, Sweet Pippin, Early Nonpareil, Early Strawberry, Dwarf Paradise, Sapson, Pearmain, Keswick Codlin, Root's Early, Granny Sweeting, Summer Green, Maiden's Blush.

The number of specimens of each was liberal, and the fruit of each variety large and fine. Very many were of peculiarly fine growth, and rich in bloom. Your committee look upon the exhibition as in quantity and quality highly gratifying, and they doubt much if the show of fruit, for August, could be excelled by that of any society of like kind in this state.

All which is respectfully submitted.

W. R. COPPOCK,
WM. W. MANN.

Buffalo, Aug. 27, 1846.

.....

STODDARD'S ALPINE STRAWBERRY.—We have now lying on our table, four letters, including one from Mr. Prince of Flushing, and Mr. Elliott o Cleveland, relating to the character of this new

Alpine strawberry. The writers give their testimony against this variety, and assert that it is no better, if it is not identically the same as the old Alpine.

There appears to be but little doubt in the minds of all who have possession of this sort, that much of the high reputation which it obtained last season was owing to the circumstances under which the original bed was grown by Mr. Stoddard. The soil was one of unusual depth and fertility, and the fruit was, consequently, extraordinarily large and abundant. Still we think all the opinions yet advanced by the present growers of this variety are somewhat premature. Suppose, for example, any new Pine strawberry had been received from England just a year, or perhaps only six months ago, (the time that Stoddard's Seedling has "been out,") would not those importing it, cultivate till at least the second season, before pronouncing on its merits? Certainly we think so; and we do not know why Stoddard's Alpine should not be allowed the same time to establish itself, and prove its qualities, before a verdict is pronounced against it.

.....

WHAT IS THE BEST PEACH?—We incline to the opinion, that the best peach for this latitude, taking into account *all* the desirable qualities for standard *garden* culture, is the GEORGE IV. This most excellent sort, though it bears a royal name, is a native of New-York, and is perfectly adapted to this climate. It is large, very handsome, and exceedingly high flavored. The tree is remarkably healthy. But what we look upon as its crowning merit, is its *bearing habit*. Nearly all our peach trees, in the easy careless culture of our gardens and orchards, are ruined by excessive overbearing. Not one person in ten ever thinks it worth his while to thin out the fruit of a peach tree, when that fruit is half grown, and the consequence is that the fruit attains only half the size and flavor that it otherwise would, and the tree itself is injured by the overcrop.

Now the George IV. has the excellent habit of bearing *just enough* fruit. That is, it presents the appearance when the fruit is half grown, when compared with most other sorts, of only half a crop. But when the fruit is fully grown, every specimen is large, ripens finely, and is of the most delicious flavor, while the quantity at last proves abundant. This renders the tree a regular bearer, and adds greatly to its longevity.

Among early peaches, we are inclined to believe the true *Early York* not surpassed, if it is equalled, by any other very early fruit. We allude to the *Early York* of our work on Fruits, a variety with *serrated* leaves, quite distinct from, and, we think, superior to the peach known by this name in New-Jersey. For all localities south as well as north, we now think it decidedly superior to the *Early Tillotson*, a fine fruit, but which is comparatively a slow grower, and we find ripens about the same season.

The fairest and most excellent of the white peaches, is the Snow Peach, which deserves its name, as well as a place in every good garden.—ED.

TWO NEW SEEDLING PLUMS FROM MAINE.—We have been favored with specimens, by express, of two new seedling Plums from Maine, by B. F. NOURSE, Esq., of Bangor. Mr. Nourse has also furnished us with a description of these new fruits, which we here append. Col. Henry Little, of Bangor, has also, we learn, presented specimens at one of the recent weekly exhibitions of the Horticultural Society of Massachusetts.

The specimens came to us in very good order.

The *McLaughlin*, we should consider a very excellent fruit—perhaps a fruit of the first rank. It is not unlike in form to the Purple Gage, and has a rich high flavor. The *Penobscot* we think, so far as we could judge from the specimens we received, is only a second rate fruit, though large and handsome. It resembles in appearance Prince's Yellow Gage, but it is a clingstone. We give an outline of the McLaughlin, taken from the fruit. No doubt both these varieties will be valuable for their great hardiness in all northern localities. The following are Mr. Nourse's descriptions.—ED.

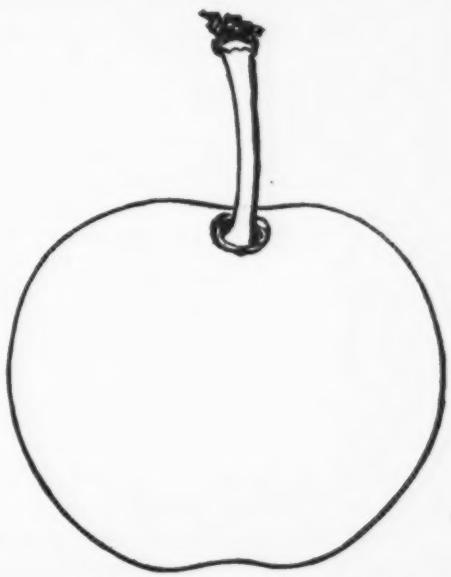

Fig. 54. *The McLaughlin Plum.*

The McLaughlin Plum was raised by James McLaughlin, Esq., of Bangor, Maine, and first fruited about three or four years ago; since when the original tree has been a regular and good bearer. Grown in light sandy loam, it remains to be seen if it will improve or deteriorate in heavier soil.

The tree is of rapid growth, making stout vigorous shoots of four to six feet in a season. Top is round, low, spreading, and, as its grower says, "it makes a regular apple-tree top." Leaves long, broad and glossy. Bark smooth and clean—and on the new shoots dark.

Fruit above medium size, nearly round, but flattened at either end more than any plum described in your "Fruits and Fruit Trees," being of greater breadth than length. Suture obscure. Stalk about three-fourths of an inch long, inserted in a small cavity, [without depression—ED.] Skin thin and tender, (russet) yellow, sprinkled with a red tinge which deepens to a purplish hue around the stalk,

where there is considerable bloom. Flesh dull yellow, juicy, rather firm, very sweet, and of luscious flavor. [It adheres to the stone, which is roundish in figure.—Ed.] Surpassing all varieties that have yet fruited here. Ripens last of August.

The Penobscot Plum was also raised by James McLaughlin, Esq., and though inferior to that bearing his name, is esteemed worthy of a place among good plums.

Like the McLaughlin, its original tree has borne but three or four years, is a good bearer, and was planted in same light soil. Its growth is also similar, though less inclined to branch horizontally.

Fruit large, oval, with distinct suture. Stalk three-fourths of an inch long, small and clean, inserted in a small cavity. Skin yellow, tinged with green, and when ripe slightly with red on the cheek, little bloom. Flesh yellow, sweet and rich, with pleasant flavor. [Stone long, and pointed at both ends; flesh adheres?—Ed.] Ripens about 5th to 10th of September at Bangor. Very respectfully. *B. F. Nourse. Bangor, Sept.* 4, 1846.

.....

The Lyman Donation.—The Hon. Theodore Lyman, of Boston, has just made the handsome donation of *one thousand dollars* to the funds of the Massachusetts Horticultural Society.

This is the *third* gift of the like amount, which the Society has received during the present year. The income of these donations previously received, it has been decided, shall be distributed annually in the form of *medals*, as prizes—the Appleton and Lowell medals; and we presume, we may now add the Lyman medals.

There is probably no society devoted to the art of culture in the Union, whose influence is so usefully and widely felt as that of Massachusetts. The great and praiseworthy interest which is felt in its prosperity by every one in Boston, from the humblest grower of salads to those occupying the highest position in society, explains very readily the cause of its large activity, and the zeal with which its affairs are conducted.

.....

Cloth of Gold Rose.—To the defective character of this rose, as given in the September number of the Horticulturist, there must be some exceptions. I have just seen several specimens in the nursery of Mr. James Wilson of this city, in full bloom. The flowers were very full, of a rather deep creamy yellow, yellowest in the centre, and of a handsome cup shape. When compared with its twin sister, the Solfaterre, which was growing close by, the Cloth of Gold was seen to be much superior in size and shape. I compared it with the Ophirie also, and it proved much superior in size, and more double. Mr. W. informed me the plants which I saw were budded last summer, potted in a dormant state last fall, kept in the greenhouse all winter, and set out in the open ground about June, after having made some growth in the pot. These plants had made good sized shoots, say from 18 to 30 inches, each shoot having quite a number of buds on it; thus showing that quite a long succession of flowers might be expected. Mr. Wilson thinks, that as far as his experience goes, and it is now three or four years since he imported it from the establishment of Mr. Rivers, at Sawbridgeworth, England, that it quite answers the description of it as given by Rivers himself.

I also saw, when there, some magnificent specimens of that finest of the Convolvulus family, the *Ipomœa learii*. It had grown on strings attached to an out-building, nearly twenty feet high, and was perfectly covered with its very large, trumpet shaped purplish-azure blossoms, beautiful as

> "—— that blue flower which brahmins say,
> Blooms nowhere but in Paradise."

I think it the finest climber I ever saw. *Sanford Howard. Albany, Sept.* 2, 1846.

The remarks of your Philadelphia correspondent on the habits of this rose, correspond with my own experience here. I have cultivated this new variety for two seasons, and have not yet had a single blossom. *C. W. Elliot. Cincinnati, Ohio, September 1st,* 1846.

This rose, I agree with you in opinion, is a rather shy bloomer. When budded on a free-growing stock, it gives a pretty good bloom once, but afterwards blooms but seldom. The color is a pale yellow, and not a good deep yellow (like Harrison's,) as I had supposed. So much for additional testimony for this region. Near Natchez, I have seen it really blooming well, but never at the north. Yours. *James Wardrop. Pittsburgh.*

[It is no doubt true that this new yellow rose only blooms freely in *strong, damp soils*, and in a cool situation. Wherever we hear of it grown on dry soils, it would appear to be rather an indifferent bloomer.—Ed.]

.....

The two Hardiest and most Profitable Apples.—What are the two hardiest and most profitable apples? I am about to plant an orchard on soil which is not very favorable, and not in the best exposure. I would be much obliged, if you would give me the names of two or three sorts best suited to such a situation. Yours sincerely. *J. H. B. New-Jersey.*

Answer.—*Baldwin* and *Rhode-Island Greening*. No two varieties of apples—fruits of the highest excellence, too—are so hardy, uniformly productive, and profitable in all soils and situations, as these. We have noticed both of them this season, in orchards in various parts of the country, where other sorts, often productive, have almost entirely failed, and yet these are giving *abundant* crops of large, fair fruit. We doubt if any better market sorts, all points considered, can be found for soils of medium quality.—Ed.

.....

The Gravenstein and the Porter Apples.—For the month of September, I esteem these the two best apples. Both of them bear as finely as I could wish. The Gravenstein is a large, admirably formed fruit, of just that mixture of sweet and acid that is most agreeable. The Porter Apple is as handsome as an orange, though its color, when quite matured, is more like that of a lemon. Like almost all our best native fruits, it is fair and smooth, and its products heavy. In market it commands the best price. Yours. *A. S. New-York, Sept. 10th,* 1846.

GIGANTIC QUINCE TREE.—While in the neighborhood of Geneva this season, our attention was called to a specimen of the common quince tree, which is larger than any that we have ever heard of. Mr. HILDRETH, of that place, has since very carefully measured it, at our request. Its trunk is two feet in diameter, or has a girth of six feet. It is about thirty feet high, and has a very vigorous and luxuriant head, the branches extending over a circle seventy-five feet in circumference. It bears very large crops of the variety known as the *Pear* Quince. It is situated in deep rich soil, on the land of Mr. DUTTON of Seneca, and, we understand, was planted about forty years ago.

The Quince is generally looked upon as a mere bush or large shrub, and it owes this dwarfish habit, which it usually assumes, chiefly to the wretched treatment it receives. No tree, as this specimen fully proves, better repays its owner for *deep, rich* soil. The poor and wet situations, where it is generally forced to grow, are the worst possible ones for it.

.....

LABELS FOR FRUIT TREES.—I have seen in our agricultural and horticultural periodicals many directions for making labels for fruit and other trees, none of which are as simple and cheap as this:

Take a strip of sheet tin of any size you may choose; the most convenient is about three inches by three-fourths of an inch, and write the name etc., thereon with a sharp awl, *being careful to cut through the tin coating*. The letters will soon oxidize so as to be read as easily as ordinary printing, and the label remains thenceforth unchanged. In suspending from the tree, either make two holes, or twist your wire tight, else the tin may cut it off if allowed to work in the loop. *J. W. B. Rochester.*

.....

NOTES ON PEARS AND APPLES ABROAD.—From an interesting letter, with which we have been favored by an amateur in Baltimore, we make the following interesting extract:

"Did I mention a pear I met with in Rome, during the latter end of March and first of April?—a large, pyriform, juicy fruit, of an excellent, though not very high flavor. I could learn nothing farther of it than that it was called 'Spadano.' It was a fine fruit for one so late. When in Paris, at the end of September, the *Napoleon*, the same as I have fruited here for three years, was one of the principal pears in season: it is juicy, but not high flavored. At the same period the *Marie Louise* was in eating, a very fine juicy fruit. This is considered the best November pear in London. At the above period, there was also, in Paris, the *Duchess d'Angoulême*, and the *Brown Beurré;* but the pear *preferred above all others* was the *White Doyenné*, far excelling some dozen varieties then in season, both in beauty and quality.

"I was told in England, by gardeners and fruiterers, that the *Seckel* was the best flavored pear known, but that it would not keep in their climate.

"The finer sorts of American apples are superior to the best of the English varieties. The *Ribston Pippin*, one of their very best, is a pleasant apple, but wants the American characteristics, juiciness and crispness. The *Blenheim Orange*, another celebrated fruit, wants acidity; the *Hawthornden* is good, but rather acid; the *Red Astrachan* is a fine flavored fruit, and is for sale in Covent Garden Market at the end of July. Among their other apples, I found the *Emperor Alexander* well flavored, but tough; the *Nonpareil* the same, but too dry; *Courpendu*, good flavor, but tough and dry. The finest apple I met with in Europe was the *White Colville*, at Paris, in January—the size full medium; form remarkably *ribbed*; color pale bright yellow, a handsome and tender fruit, juicy and of a pleasant acid flavor, but not high.

"In eating the *Newtown Pippin* in London, imported from the United States, (where the demand is so great that a market may be made for thousands of barrels) one cannot but be struck with its superiority over all English apples—a fact fully admitted by all Englishmen themselves. This fruit costs there about $10 per barrel, and is retailed for five to seven cents each. In several towns in Ireland, I have noticed native apples labelled 'American,' to ensure a ready sale." *W. Baltimore, Md., Sept.* 10, 1846.

.....

THE MOST RAPID GROWING MAPLE.—How many persons, undertaking to improve new and bare places, are at a loss for what trees to plant for immediate effect! "Something which will grow fast," is to them the great desideratum of life. To talk to such persons about steady and slow growing trees—beeches and oaks—is like talking to the manager of the electric telegraph about the advantages of the old fashioned mail coaches.

We must have the pleasure of recommending to such persons that excellent tree, the Silver Maple, *Acer eriocarpum*. It is, we believe, to be had in all the large nurseries, though indigenous here and there, it is seldom planted as an ornamental tree north of New-Jersey. It is a large and handsome tree, with leaves as large as those of the Sugar Maple, but more delicately formed, and with a silvery or downy under surface.

But the *habit* of the tree is quite distinct from the other maples. When it has once formed a head, its branches begin to decline or droop slightly, with just enough of a sweep to be graceful, but not sufficient to amount to a *weeping* wood. In short, with its pleasing habit, clean foliage, and smooth bark, it is one of the most agreeable of trees.

As regards its rapidity of growth, it is quite remarkable. We do not know any fairer wooded tree, except the Elm and the Abele, which sooner throws a fine shade. As compared with the Sugar Maple, its growth is double. In five years it really makes a fine large head. And as a recommendation of still greater importance, we may add that it will thrive in almost any tolerable soil, from a light sand to a strong clay loam.

.....

SALT AS A MANURE.—J. M. Ives, at page 132, says he applied five hogsheads of salt to the acre—but I wish to know if he meant an English hogshead of 63 gallons? or a butt, which, according to N. Webster, is called a hogshead in America, though it contains from 110 to 120 gallons? I would thank him to say how many pounds, or how many bushels of salt he applied to the acre. *X.*

DESTROYING INSECTS.—This season, insects have been unusually destructive to our finer fruits. The Wasp, the Yellow Hornet, the Bee, the Snapping Bug and Ants, have all been busy in breaking through the skin, and causing a premature decay—in some cases before the fruit was ripe. At least one-half of our apricots rotted in consequence of these attacks, and many of our finest peaches. A continued buzz was heard in the trees; and what to do became the question. Every wasp nest that we could find was destroyed, together with the *builders*, so that a very sensible diminution in their numbers was observable; but still there were many left to crowd in with the other insects; and I thought of the plan, long since adopted by English gardeners, which was to hang phials filled with sweetened water among the branches. This plan has proved very successful; and if I had adopted it early in the season, much fine fruit might have been saved. May we all remember it next year. *D. Thomas. Cayuga co., 9 mo 13, 1846.*

.....

HOW TO CARVE A WATER MELON.—Cut off the ends, and lay them aside; then if the fruit is long, divide it into *two* parts, by another cross section. Set the part or parts on end, and pass the knife perpendicularly downwards several times, till the pieces are an inch and a half or two inches broad across the rind. In this manner the seeds are easily removed, and the pieces of a convenient shape. *R. Cayuga.* .....

PITY THE TOWN TREES.—The anomalies attendant upon the growth of trees in large cities, might serve for a theme whereon to write a volume. They are placed in a hole quite too small for them, a little rubbish is thrown about their roots, the bricks are laid carefully as tight and near the root as possible, and the curbstone touches the rootlets at least on one side. To prevent the rain from ever reaching the roots, the tree is now enclosed in a box, and this tender vegetable production is expected to grow! Sometimes this is the case, but more generally, as nobody ever thinks of watering it, it dwindles and dies. The wonder is that any city tree ever survives the treatment.

Care should be taken, in the first place, to have the whole large and deep; and to this should be brought, before the tree is procured, cart loads of the best soil that can be got; then plant carefully in the usual manner, leaving the paving as far from the stem as propriety will admit. If the watering pot is now judiciously used when the weather is dry, and sufficient ventilation is given in the sides of the tree box, the probability is that a shade tree will be produced.

It is a melancholy circumstance that evergreen trees, as a rule, will not succeed in large cities, else we might have much more ornamental planting than we now have. Deciduous trees, resembling evergreens, may be advantageously substituted, and among these the Cypress and the Larch are probably the best. The Cypress is late in producing its leaves, and may be said to be a clean tree, though not as good for shade as some others. Probably we shall have a good, and certainly a quick-growing tree in the *Paulownia imperialis*. It will be useful the first season, and the second or third, will attain all the height required; after which it may be trimmed to suit the wishes of the owner.

The trimming of the successful trees in the streets and in public squares in cities, is another subject deserving of comment. Every erroneous experiment is tried upon them, to distort and disfigure their naturally graceful forms. The principal object seems to be to endeavor to force them to a great height, by denuding them of their lower limbs, than which nothing could be more preposterous and injurious. Even the beautiful Cypress in Washington square has undergone this shocking operation the present season, and it now looks like a scarecrow on stilts. *City fathers*, who know less of trees than of yard sticks, would do well to employ a little science in this matter, rather than injure for posterity the beautiful works of nature. They might also very advantageously ask of experience the best kind of trees for planting. *Philadelphia.* .....

LIMA BEANS DRIED.—Are all your readers aware that Lima beans may be made a vegetable for "all winter's use?" Gathered just at the time when they are fit to pull for the table, and dried on the floor of an airy loft, they will keep for many months. Before using them, you need only soak them in water for twelve hours (say from the previous evening till the morning they are wanted.) Then boil them, and serve them as if they were fresh. They are not a whit inferior to fresh ones, or at least you are willing to admit it in mid-winter. *A. S. New-York.*

MASSACHUSETTS HORTICULTURAL SOCIETY.

MASSACHUSETTS HORTICULTURAL HALL,
Boston, August 29, 1846.

The President read the following letter from the Hon. Theodore Lyman:

"SIR—I beg to hand enclosed a check for a thousand dollars, payable to your order. I have only to request that this sum may be invested in a permanent manner, and the proceeds of the investment be appropriated in the shape of prizes for the encouragement of the growth of such kind or kinds of fruit as the government of the Horticultural Society may deem advisable to select. I am, sir, your obedient servt.

"THEODORE LYMAN.

"TO MARSHALL P. WILDER, ESQ.,
President of the Mass. Hort. Society.
"*Brookline, Aug. 26, 1846.*"

Voted, That the thanks of this Institution be tendered to the Hon. Theodore Lyman, for his munificent donation of one thousand dollars.

Voted, That the Society entertain the highest respect for the liberality that prompted so substantial a token of interest in its welfare.

Voted, That this donation be permanently invested by the Finance Committee; that it take the name of the LYMAN FUND; and that the income be distributed in medals or plate, as the Society may direct.

Voted, That the Recording Secretary transmit a copy of the foregoing votes to Mr. Lyman.

Voted, That the Committee of Arrangments have power to increase their number.

Hon. Theodore Lyman, Brookline, elected honorary member; Walter Farnsworth, Roxbury, elected a member.

Exhibition of Saturday, Sept. 5th, 1846.

FLOWERS.—From M. P. Wilder, President of the Society, fine Dahlias.

From O. H. Mather, a plant of Buddlea lindleyana, and one bouquet.

From J. L. L. F. Warren, Phlox breckii, (fine specimens,) White Water Lilies, Lilium longiflora, Zinnias, and other cut flowers; two large and ten small bouquets; also three plants of Amaryllis belladonna.

From William Kenrick, by Miss Russell, one large and two small bouquets, basket of flowers, and cut flowers.

From Joseph Breck and Co., Phlox breckii, wilderii, a fine white seedling of W. E. Carter, and other varieties, Lobelia syphilitica, Altheas, Zinnias, Double Balsams, fine Double Imperial Pinks, Verbenas, Sweet Peas, Dahlias, with a variety of other cut flowers.

From Parker Barnes, Dahlias, Verbenas, Roses, Zinnias, Salvia splendens, Sweet Peas, Asters, Phlox drummondii, Erythrina crista-galli, (a fine specimen,) Double Sun-flower, &c.

From T. H. Perkins, by W. Quant, fine Asters, Dahlias, Phlox Drummondii, Zinnias, Marigolds, a fine specimen of Melastoma malabathrica, Tecoma jasminoides, and other fine cut flowers.

From H. W. Dutton, Dahlias, Zinnias, Asters, and other cut flowers.

From Hovey & Co., fine Roses, Altheas, and four bouquets.

From G. C. Crowninshield, by Jeremiah McCarty, fine German Asters.

From John Hovey, Dahlias, Asters, two bouquets, and two plants of Vallota purpurea; and a beautiful flower of the Amaryrillis tribe.

From William Meller, forty-six varieties of Dahlias, two bouquets, and cut flowers in variety.

From Thomas Mason, Dahlias.

From W. B. Richards, twenty-two varieties of Dahlias, Commelina cœlestis, Salvia splendens, &c.

From R. West, Salem, by J. Sheehan, one pyramidal bouquet or design, and a fine bloom of Cactus triangularis.

From John A. Lowell, by Wm. Doyle, a curious and beautiful air-plant, Stanhopea occulata, Zygopetalum maxillare, a rare orchideous plant, and one large pyramidal design or bouquet.

From J. W. Mandel, one large pyramidal design or bouquet, Dahlias and Asters.

From James Nugent, fine Dahlias, Ferrarias, &c.

The Committee report the following Dahlias in the different stands as being very fine:

M. P. Wilder, Cleopatra, yellow, new; Tassot's Indispensable White; Constantia, white edged with cherry; Arethusa, fine purple, new; Ithuriel, lilac, dove and orange, shaded; Isis, bronze tipped with white, colors variable in different flowers, fine fancy flower.

J. Breck & Co., Vanguard, crimson, new; Optimus, fine blush white, new; Arethusa, fine purple, new; Cleopatra and Tassot's Indispensable.

Parker Barnes, Prince's Olive, fine white; Beauty of Sussex, white with a deep edge of cherry; Essex Champion, fine orange scarlet; Nonpareil, dark scarlet; Antagonist, white; Bridesmaid, white tipped with purple.

H. W. Dutton, Girling's Prince of Wales, purple shaded with crimson; Viscountess Resigneur, purple tipped with white, new.

J. L. L. F. Warren, Great Mogul, crimson; Tassot's Indispensable; Rembrandt, purple; Constantia; Competitor (Girling's) crimson; Pactole, yellow, new; Viscountess Resigneur.

W. Quant, Antagonist, Lady St. Maur, and Royal Sovereign, yellow, new.

W. B. Richards, Dodd's Prince of Wales, yellow; Standard of Perfection, purple; Col. Baker, purple.

William Meller. Antagonist, Lady St. Maur, La Leon, scarlet tipped with white; Northern Beauty.

John Parker, Model, purple; Dodd's Prince of Wales; Pickwick, and Ne Plus Ultra.

James Nugent, Cleopatra, Standar[illegible] f Perfection and Constantia.

John Hovey, Marshal Soult and Dodd's Prince of Wales.

J. W. Mandell, Dowager Lady Cooper, Beauty of Sussex, and Standard of Perfection.

AWARD OF PREMIUMS.

Parker Barnes, H. W. Dutton and James Nugent, judges. First premium to Miss Russell, for best bouquet, $2; second premium to J. L. L. F. Warren for next best bouquet, $1.

Gratuities. To William Doyle, $2, for a beautiful air-plant, Stanhopea occulata, and $1 for pyramidal design or bouquet. To J. W. Mandel, $1 for pyramidal design or bouquet. To R. West, $1 for pyramidal design or bouquet.

For the Committee, JOS. BRECK, Ch'n.

FRUITS.—J. S. Sleeper, Pears—Harvard, fine.

A. D. Williams, Apples—Porter, fine, Russet Sweet, Fall Sopsavine and Red Apple; Pears—Harrison Fall Baking, Julienne, Williams' Seedling, Cushing's Dryanna.

J. C. Cabot, Esq. Salem, Pears—Passans de Portugal, Summer Franc Real, Hessel, Honey, Dearborn's Seedling, all fine.

J. Fisk Allen, Pears—Passans de Portugal, Cabot, Dearborn's Seedling, Summer Franc Real, fine; Peaches—Crawford's Early, Noblesse, Cooledge's Favorite; Plums—Green Gages, fine; Grapes, Zinfindal, Ferral, White Frontignan, Black Hamburgh, Wilmot's No. 16, Syrian, Esperione.

Josiah Lovett, Beverly, Melons—Christiana, Green-fleshed, Green and Yellow, and other varieties; Pear, Musk, Bon Chretien d'Ete.

George Walsh, Williams' Bon Chretien Pears, Lady Blush Apples, and Green Gage Plums.

James Nugent, William's Bon Chretien Pears.

Messrs. Hovey & Co., Grapes—Black Prince, Alicant, White Frontignan, Chasselas of Fontainbleau, Wilmot's Black Hamburgh, fine, Black Hamburg, Black Hamburgh,(?) Maready's Early White, Grizzly Frontignan, Pitmaston White Cluster; Pears—Jalousie de Fontenay Vendee, good quality, Bezi Veteran; Seedling Peach.

J. L. L. F. Warren, Pears—Julienne, Dearborn's Seedling; Nectarines; Spanish Water Melon.

Parker Barnes, Peaches.

William Beebe, Springfield, Peaches.

Alexander Clark, South Framingham, Peaches, two specimens weighing ten and a half ounces each.

Samuel Pond, Pears—Jargonelle of the French, Williams' Bon Chretien, Fondante d'Automne, St. Ghislain, Grosse de Bruxelles, Surpasse Virgouleuse; Plums—Long Blue French, Isabella, Diamond.

G. Merriam, West Newtown, Peaches—Jacques, Rareripe, Hasting's, Cooledge's Favorite, and a variety without a name.

M. P. Wilder, Pears—Fondante d'Ete, Golden Beurre of Bilboa, Julienne, Fondante d'Automne, very fine, and Beurre d'Aumalis.

O. H. Mather, by Thomas Needham, Grapes—Black Hamburg, Chasselas Musque, Black Frankendale, White Chasselas, White Constantia,(?) Black Lombardy (?); Red Apple.

Messrs. Winship, Plums—Downton Imperatrice, Duane's Purple, Smith's Orleans, Long Blue French, two kinds without name, Italian Prune, Yellow Magnum Bonum, Belle de Rheims, Lombard, Nectarine Plum, Diamond, Cloth of Gold, Bingham,(?) Huling's Superb, Coe's Golden Drop.

E. M. Richards, Cushing Pears and Seedling Peaches.

Samuel Walker, Roxbury, Pears—Fondante d'Automne, Marie Louise, Beurre de Capiemont, Golden Beurre of Bilboa.

Henry Little, Bangor, Plums—McLaughlin, and Penobscot Seedlings by Joseph McLaughlin, Esq.

Otis Johnson, Esq., Pears—Julienne, Rousselet, Panache, Hericart, Epine d'Ete, St. Ghislain; Black Hamburg Grapes, and a Pear unknown.

William R. Austin, Dorchester, Summer Franc Real Pear, and Early Ann Peach.

A. W. Withington, Apples unknown.

H. C. Merriam, North Tewksbury, twenty-one varieties of Peaches.

Wood Apples, a new seedling variety from F. Glazier, Hallowell.

Presented by Hovey & Co., a good Apple for the season.

R. Manning, Pomological Garden, Salem, Tyson Pear, very fine flavor.

At the last exhibition some very fine Pears, of the kind called Manning's Elizabeth, were shown by Charles F. Putnam of Salem.

For the Committee, JOHN FISK ALLEN.

VEGETABLES.—From Mr. Williams, two Tomatoes weighing three pounds, and an Egg plant.

From A. D. Williams, Sweet Corn.

From Henry Mygatt, Farmington, Ct., some very fine Bell Peppers.

For the Committee. A. D. WILLIAMS, Ch'n.

Exhibition of Saturday, Sept. 12, 1846.

GERMAN ASTERS.—German Asters were exhibited by Messrs. Daniel Crowley, James Nugent, J. W. Mandel, Thomas Mason, Otis Johnson, William Quant, and Hovey & Co.

Notwithstanding the very unfavorable season, (extreme hot weather,) many fine Asters were exhibited.

Also Dahlias, by Messrs Thomas Mason, Parker Barnes, and James Nugent.

Messrs. Dutton, McLellan, and Bowditch, were appointed judges to award the Society's premiums on German Asters, who, after a close examination of the several stands, awarded to Mr. W. Quant a premium of $1, for the best display; to Messrs. Hovey & Co., a premium of $3, for the second best; and to J. W. Mandel, for the third best display, a premium of $2.

For the Committee. Jos. Breck, Ch'n.

FRUITS.—The President of the Society, M. P. Wilder, presented specimens of the Dunmore Pear. Also specimens from J. B. Chapin and J. J. Simpson, Esq., of Providence, R. I., of Knight's Seedling Pear, (large size, very sweet and melting,) and specimens of a pear resembling, if not, the Duchess d'Angouleme, but of which the Committee have some doubt, owing to the soft and melting character of the flesh and its sub-acid juice; other specimens (not so ripe) another season, with a sight of the leaf and wood, will probably remove our doubts.

N. Stetson, Bridgewater, seedling Peach, too ripe to enable the Committee to judge of its merits.

Messrs. Hovey and Co., seedling Peaches, medium size, color nearly white, with a slight tinge of crimson, of good flavor and worthy of cultivation.

F. W. Lincoln, of Canton, Red and Yellow Rareripe Peaches; also a seedling.

William G. Lewis, Roxbury, a dish of very large Peaches, highly colored, but of poor flavor.

Edward Winslow, Roxbury, four specimens of a seedling Peach.

Joseph Cushman, Plymouth, Grapes—Isabella, fine bunches and finely colored; also a dish of Nectarines; a dish of Plums, seedling; Peaches, seedling, and a variety name unknown.

Ben. Guild, Esq., Robinson Crusoe Peaches, and Beurre de Beaumont Pears.

James W. Sever, Dorchester, Rareripe Peaches of high and brisk flavor.

S. Pond, Cambridgeport, Grosse de Bruxelles Pear.(?)

Seedling Peaches from the farm of Col. Elijah Hale, Rock Bottom Village, Stow.

C. Harris, of Worcester, presented some specimens of a seedling Pear, raised by the Rev. Mr. Tracy of Sutton, supposed to be from a seedling tree grown in Connecticut; the specimens were overripe, but the Committee are of the opinion that it is not worthy of cultivation.

Leonard Cheney of Southbridge, by Charles R. Bond, seedling Peaches of fine flavor.

Alexander Clark, South Framingham, a dish of fine Peaches

George Meriam, Newton, Royal Cling Peaches.

Bartlett Pears by James Nugent.

For the Committee. S. Walker, Ch'n.

PENNSYLVANIA HORTICULTURAL SOCIETY.

Philadelphia, *August*, 18, 1846.

The stated meeting was held as usual, the President in the chair.

REPORTS OF STANDING COMMITTEES.

The Committee on Plants and Flowers awarded the premium for the most interesting collection of Plants in pots to William Hall, gardener to Caleb Cope. For the best collection of indigenous flowers, to Archibald Henderson, gardener to Wharton Chancellor. For the best bouquet, to the same. For the next best bouquet, to Anthony Felten; and for the best bouquet of indigenous flowers, to Archibald Henderson.

The Committee on Fruits awarded premiums as follows:—Peaches, for the best half peck, Alberge var., to Thomas Hancock; for the next best, to J. B. Baxter. Pears: for the best and next best, to Patrick Gallagher, gardener to Miss Gratz. Plums: for the best and next best, to Isaac B. Baxter. The following special premiums were also awarded: one of $5 to William Westcott, gardener to J. Cowperthwaite, for four dishes of splendid Grapes. One of $5 to William Hall, gardener to C. Cope, for ten dishes of very fine Grapes. One of $2 to Benjamin Gullis, gardener to J. Snider, for Grapes; and one of $1 to William Hall for fine Nectarines.

The Committee remarked, that they were gratified to find so rich a display in their department, surpassing in beauty and variety what they were led to expect on this occasion. And they call the attention of the Society to some new varieties of Grapes, presented by R. Buist, of remarkable size; also some dishes of Apples called the Hagloe, of surpassing beauty in appearance.

The Committee on Vegetables awarded the premiums for the best display, and for the next best display, to Anthony Felton; and also a special premium of $1, for a fine display of vegetables deposited by Dr. Rivinus of Westchester, Pa., among which was a new variety of Squash, the seed of which was received from the Island of St. Croix, and is said to be superior in flavor to the common Squash.

A communication from the Secretary of the New-Haven County Horticultural Society was read, inviting a delegation to visit their annual fair, to be held on the 22d, 23d and 24th prox., which was referred to the Committee to superintend exhibitions, with power to act; subsequently the Committee resolved to accept the invitation, and appoint a deputation of five members.

Members elected.—Andrew H. Ernst, of Cincinnati, Ohio, to honorary and corresponding membership; Richard S. Field of Princeton, N. J., to honorary membership.

Presented.—For the Library, Vol. X. of the Farmer's Cabinet, by the Editor.

Objects exhibited.—Plants, by William Hall, gardener to C Cope, a small choice collection. By Peter Raabe, a few fine plants. By Robert Buist, twenty kinds of cut flowers, of double German Stocks, and sixteen kinds of cut specimens of German Asters. By Archibald Henderson, a large collection of indigenous flowers, very interesting.

Bouquets, by Archibald Henderson, a beautiful basket and an indigenous bouquet. By Anthony Felten, a number.

Fruit—By Thomas Hancock of Burlington, N. J., Peaches, Alberge or Yellow Rareripe and New-York Rareripe: Apples, Hagloe, Summer Pearmain, Maiden's Blush, Summer Queen, and Early Strawberry. Pears: Julienne; also from Dr. Rumsey's, Fishkill Landing, N. Y., some Cumberland Pears.

By Isaac B. Baxter, Peaches, Belle d'Ivry; Plums, Heuling's Superb, &c.

By Robert Buist, two new varieties of Grapes—the Decan's Superb and S. Charge's Heuling.

By William Westcott, gardener to J. Cowperthwaite, four dishes of splendid Grapes.

By William Hall, gardener to C. Cope, ten dishes very fine Grapes and Nectarines.

By Benj. Gullis, gardener to Jacob Snider, Jr., fine Grapes.

By Patrick Gallagher, gardener to Miss Gratz, several kinds of Pears, &c.

By J. Lippencott, Plums, Bolmar's Washington.

Vegetables.—By Anthony Felten, a large collection of very fine kinds.

By Dr. Rivinus, of Westchester, Kohlrabbi, a small but delicate Squash, &c.

By Patrick Gallagher, gardener to Miss Gratz, Cabbages, Tomatoes, &c.

The display on this occasion was unusually rich in fruit: the Peaches, Plums, but particularly the Grapes, from their beauty and splendor, were exceedingly tempting; those from the President's and Mr. Cowperthwaite's were remarkably fine; and Mr. Buist's new foreign varieties are an acquisition. The Decan's Superb is a dark grape and excellent; the S. Charge's Heuling is a white variety, and bears a large, round, delicious berry—shown for the first time; it will improve (being grown in a pot) when raised in a border. Of vegetables, there was the usual extensive display. Of Plants, owing to the season, there were but few shown.

Tho. P. James, *Rec. Sec.*

THE NEW YORK
PUBLIC LIBRARY

ASTOR, LENOX AND
TILDEN FOUNDATIONS

FIG. 55. THE MANOR OF LIVINGSTON.

FIG. 56. MRS. CAMAC'S RESIDENCE.

(Horticulturist, Nov. 1846.)